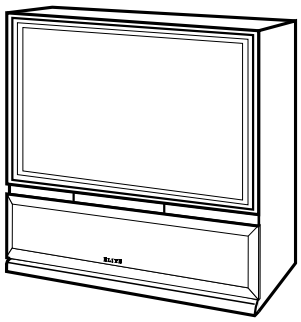
Service Manual

Pioneer



ORDER NO.
ARP3013

PROJECTION MONITOR RECEIVER

PRO-700HD

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PRO-700HD		
KUXC/CA	○	AC120V	————

CONTENTS

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O- SZG DEC. 1998 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & safety code section 25249.6—Proposition 65

NOTES
(FOR CANADIAN MODEL ONLY)
Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

1.1 SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.
The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled.
   Keep picture tube away from the body while handling.
2. When service is required, even though the PROJECTION MONITOR RECEIVER an isolation transformer should be inserted between power line and the set in safety before any service is performed.
3. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
4. When service is required, observe the original lead dress.
   Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's.
   Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacturer has become defective, or inadvertently defeated during servicing.

Therefore, the following checks should be performed for the continued protection of the customer and service technician.

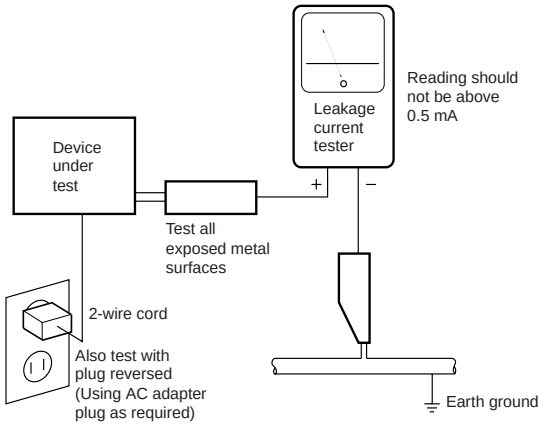
Leakage Current Cold Check

With the AC plug removed from 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on.

Using a “Leakage Current Tester (Simpson Model 229 equivalent)”, measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

High Voltage

This set is provided with a X-ray protection for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this X-ray protection may correctly by operated.

Serviceman Warning

In the status of the black picture (video muting is being applied) when no signal is input, high voltage of this set during operation is less than 30.5kV. In case any component having some relation to the high voltage is replaced, confirm that the high voltage is lower than 30.5kV in the status of the black picture when no signal is input.

To measure H.V. use a high impedance H.V. meter.

Connect (–) to earth and (+) to the FBT anode cable connector.

(Refer to page 214)

X-radiation

TUBE: The primary source of X-radiation in this set is the picture tube.

For continued X-radiation protection, the replacement tube must be the same type as the original, PIONEER approved type.

The picture tube (the CRT assy R, G, B) use in this set holds complete guarantee against X-ray radiation when the X-ray is sealed (See page 4). Accordingly, when the current in flowing to the picture tube (CRT assy R, G, B) be sure to perform it by putting the tube into X-ray sealed applied state. Avoid absolutely to flow the current to the picture tube (CRT assy R, G, B) itself. Moreover, when the voltage of the high voltage circuit becomes abnormally a little higher, the picture tube radiates X-rays. Accordingly, when servicing the high voltage circuit be sure to replace as an assembly with the DEFLECTION SERVICE assy in the manner in which has been adjusted to perform normal operation.

1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.3 CHARGED SECTION, HIGH VOLTAGE GENERATING POINT AND X-RAY PROTECTION

■ Charged section

The circuit in which the commercial AC power is used as it is without passing through the power supply transformer. If the charged section is touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. In this case, be sure to connect the set via an insulated transformer and supply the current.

■ Charged section (Power supply primary side)

1. The primary side of the AC IN assy
2. AC power cord
3. The primary side of the POWER SUPPLY assy
4. AC power cord for DTV STB

: Part is the charged section.

: Part is the high voltage generating points other than the charged section.

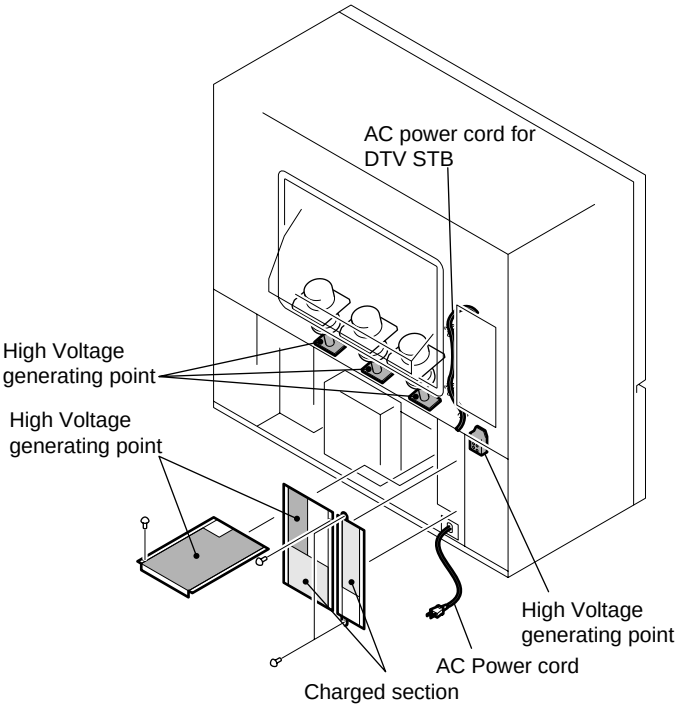


Fig. 1 Charged section and high voltage generating point

■ High voltage generating point

The place where voltage is 100V is generated.

1.Charged seciton
DEFLECTION assy
(including FBT) (30.5kV, 1.2kV, 210V,135V)
2. POWER SUPPLY assy (135V)
3. R. CRT DRIVE assy (10.5kV, 210V)
4. G. CRT DRIVE assy (10.5kV, 210V)
5. B. CRT DRIVE assy (10.5kV, 210V)
6. CRT assy R (CRT service assy R) (30.5kV)
7. CRT assy G (CRT service assy G) (30.5kV)
8. CRT assy B (CRT service assy B) (30.5kV)
9. Focus variable resistor(VR1) (10.5kV)
10. Deflection yokes (L1, L2 and L3) Approx. (1100V at peak)

■ X-ray protection

- Regarding the parts which are relative to radiation of X-rays (There is the danger to radiate X-ray from the individual CRT assy R, G, B), there are notifications of caution in the individual schematic diagrams. Be sure to read them for safety's sake.
- The component parts for X-ray protection are as follows : When the current flows to the CRT assy R, G, B, be sure to perform it with these parts being attached. Protection from the X-ray radiation is maintained in the state in which these parts have been installed to the CRT assy. R, G, B. Accordingly, never supply current only to the CRT assy R, G, B.
  Moreover, the anode voltage of the CRT assy R, G, B should always be kept not higher than the predetermined value (in the minimum brightness and picture state when non signal input is less than 30.5kV). Be sure to drive the CRT assy R, G, B by using a completely functional DEFLECTION assy which have been adjusted completely in the combined state. (When the voltage abnormally becomes high, the X-ray protection circuit will operate.)

1.CRT assy R, G, B (Do not dismantle CRT assemblies under any circumastances)
2.Each Lens assy

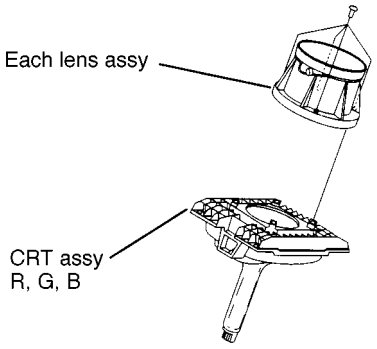
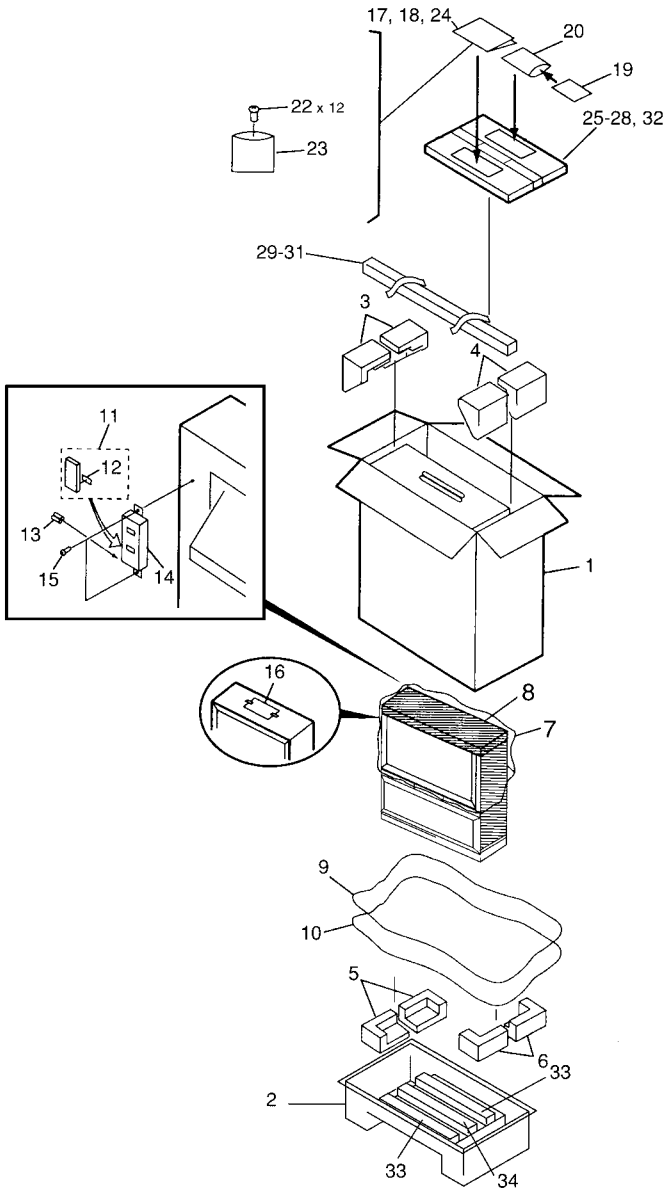


Fig. 2 Component parts for X-ray protection

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
●*Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING

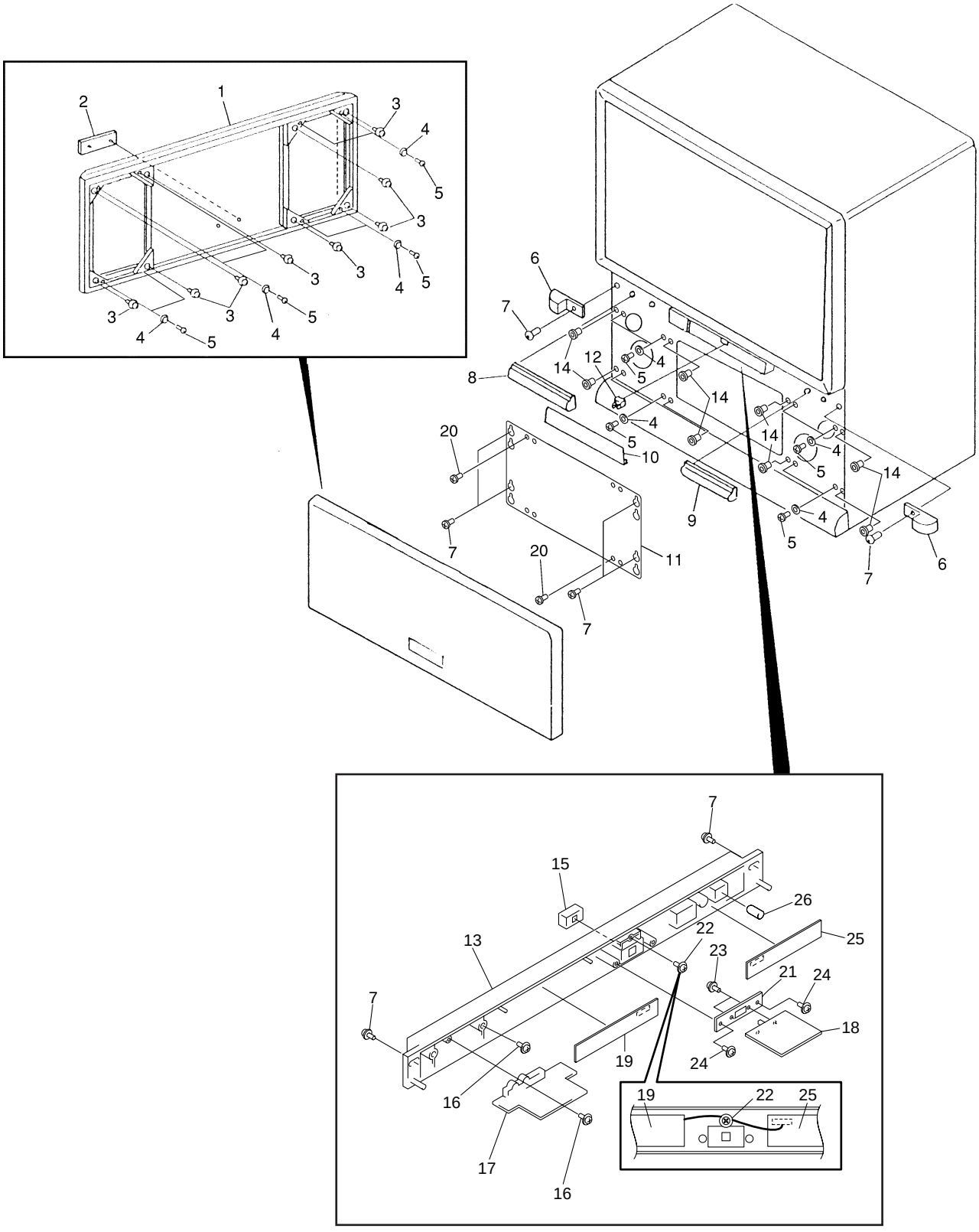


• PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	Upper Carton 64W	AHD2994
	2	Under Carton 64W	AHD2995
	3	Upper Pad L	AHA2222
	4	Upper Pad R	AHA2223
	5	Under Pad L	AHA2224
	6	Under Pad R	AHA2225
NSP	7	Vinyl Sheet 64W Upper	AHG1288
NSP	8	Packing Sheet 60	AHG1230
NSP	9	Packing Sheet 64 Under	AHG1290
	10	Vinyl Sheet 64W Under	AHG1289
	11	Remote Control Unit (CU-SD105)	AXD1438
	12	Battery Cover	AZN2401
NSP	13	Alkarine Dry Cell Battery (LR6,AA)	AEX1018
	14	CU Packing Case	AHC1032
	15	Special Screw	ABA1239
	16	CONV. Attention Card	ARM1151
	17	Operating Instructions (English)	ARB1519
NSP	18	Caution Card	ARM1057
NSP	19	Warranty Card EL	ARY1026
NSP	20	Poly Bag	AHG1285
	21	.....	
	22	Special Screw (Panel Frame Attaching Screw)	ABA1226
NSP	23	Wrapper Bag	AHG1076
NSP	24	Literature Bag	AHG1222
	25	Panel Case 64W	AHB1202
NSP	26	Vinyl Sheet 64W (for Panel)	AHG1286
	27	Protective Screen	AAK2729
	28	Acrylic Caution Card	ARH1160
	29	Frame Cover H	AAP1593
	30	Frame Cover V	AAP1594
	31	Panel Frame H	AND1163
	32	Panel Frame V	AND1164
NSP	33	Under Cushion A	AHA2228
NSP	34	Under Cushion B	AHA2229

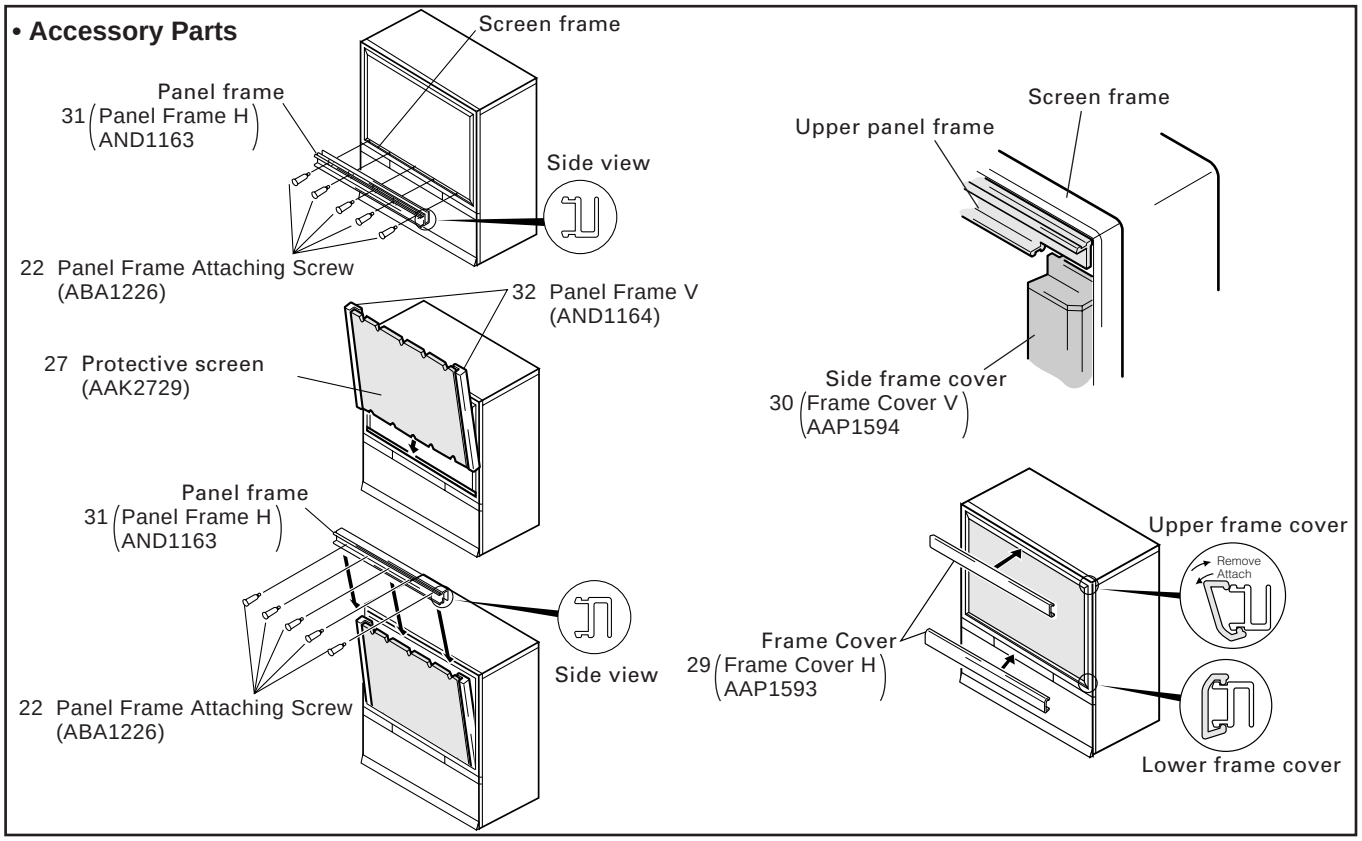
Note : As for accessory parts of part No. 22, 27 and 29 to 32, refer to page 7.

2.2 FRONT VIEW (1/2)

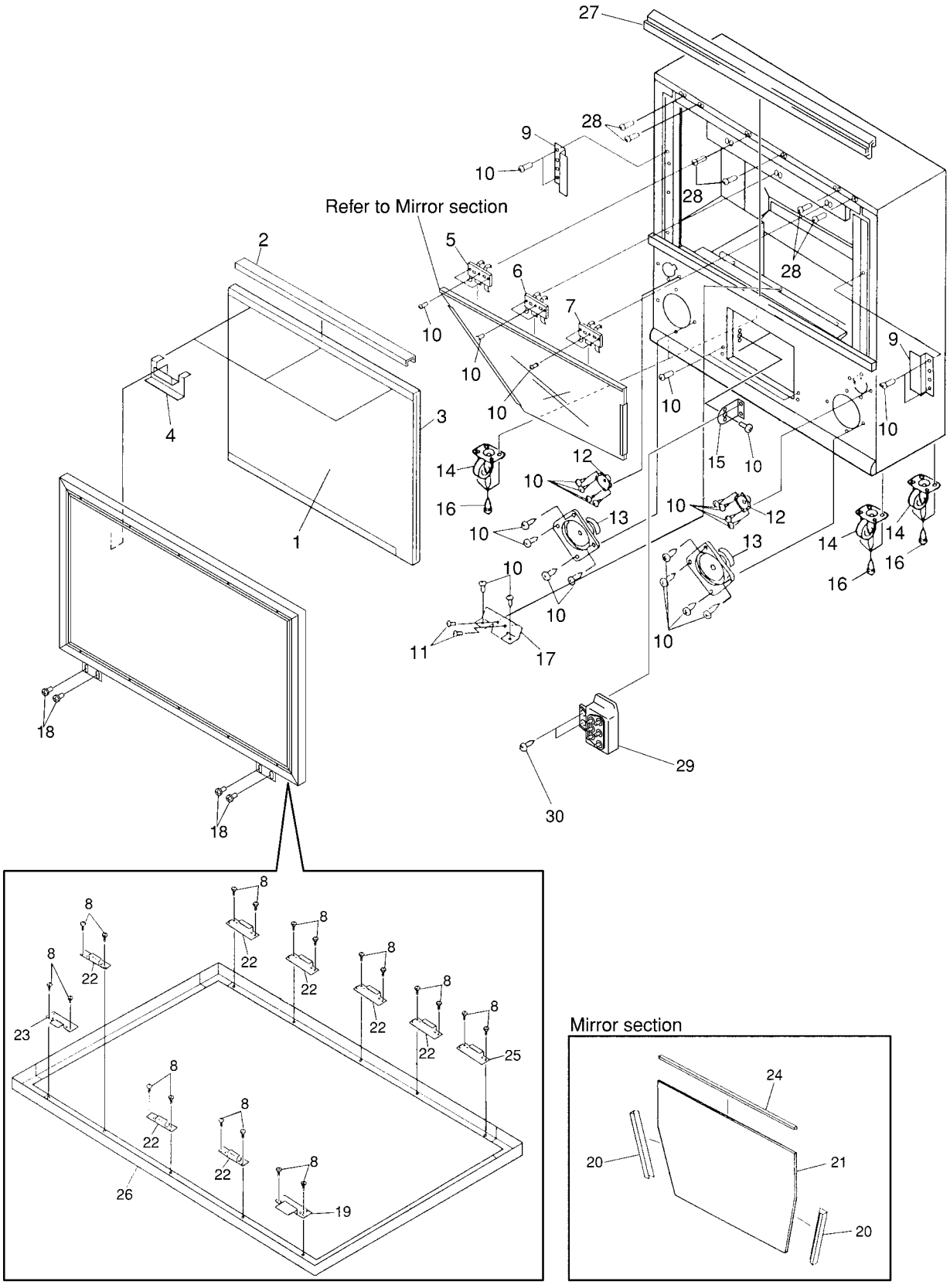


(1) FRONT VIEW (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	Grille 64	AMM2936
	2	Badge	AAM1081
NSP	3	Catcher A	ANZ-241
	4	Magic Tape	AEC1394
	5	Screw	ABA1271
	6	Side Cover	AMR3107
	7	Special Screw	ABA1240
	8	Side Panel Assy L (64W)	AMB2627
	9	Side Panel Assy R (64W)	AMB2635
	10	Door Assy	AAN1444
	11	Blind Plate	AMM2933
	12	Cather F2M	AEC1609
	13	Front Panel Assy	AMB2625
	14	Catch B	ANZ-242
	15	Power Knob	AAD4102
	16	Screw	ABZ40P080FZK
	17	FRONT INPUT Assy	AWZ6339
	18	POWER SW Assy	AWZ6341
	19	FRONT CONTROL Assy	AWZ6337
	20	Screw	ABA1239
NSP	21	Switch Holder	ANG2313
	22	Screw	ABA1269
	23	Screw	AMZ30P060FZK
	24	Screw	APZ30P080FZK
	25	LED DPO Assy	AWZ6338
	26	LED Lens	AAK2730



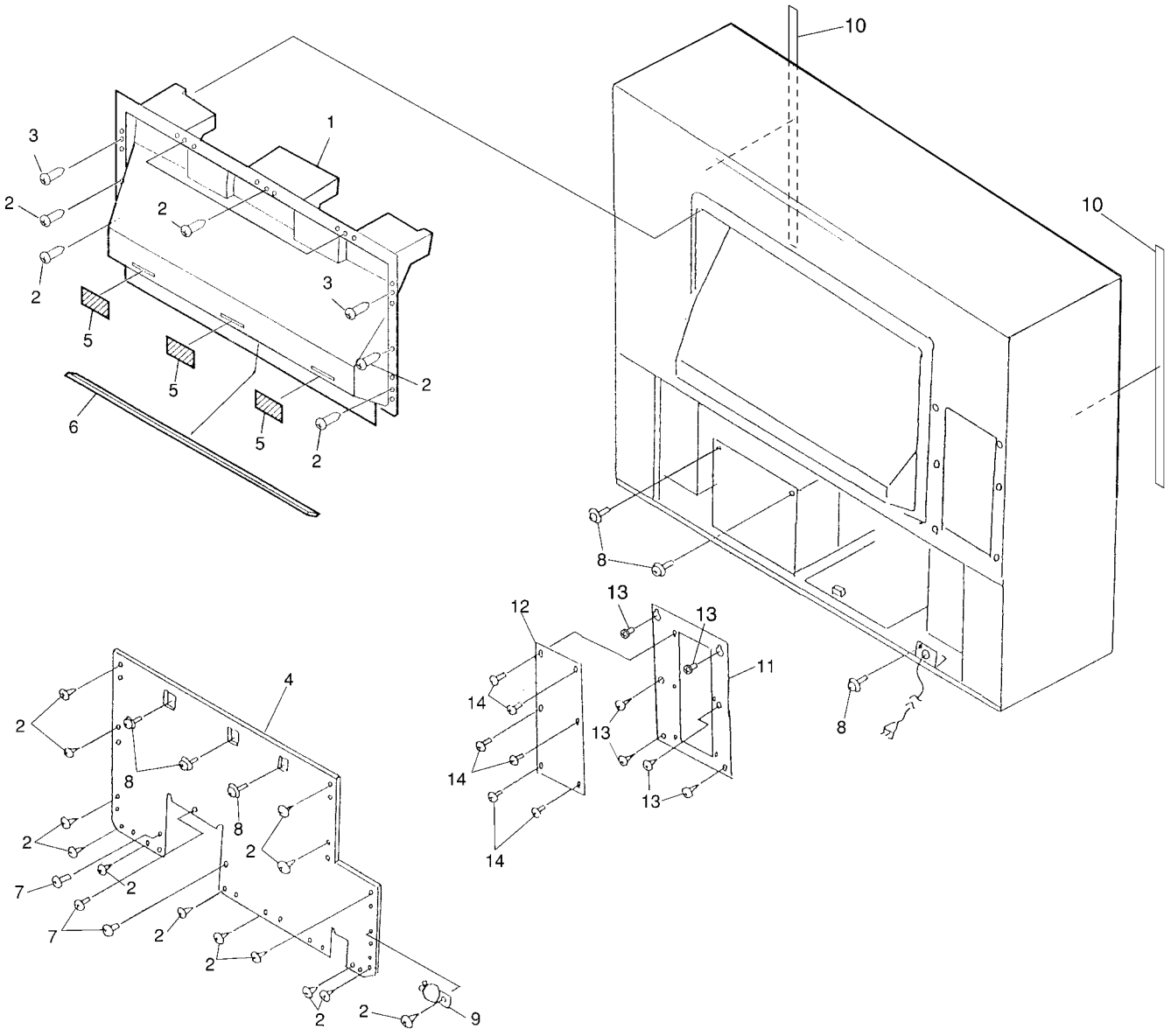
2.3 FRONT VIEW (2/2)



(1) FRONT VIEW (2/2) PARTS LIST

Mark	No.	Description	Part No.
	1	Lenticular Sheet	AMR3115
	2	Screen Holder Top 64	ANG2312
	3	Fresnel 64W	AMR3116
NSP	4	Upper Cabinet Metal	ANG2000
NSP	5	Mirror Upper Stay L	ANG2004
NSP	6	Mirror Upper Stay C	ANG2006
NSP	7	Mirror Upper Stay R	ANG2005
NSP	8	Screw	BYC35P160FMC
NSP	9	Screen Side Fitting	ANG1993
	10	Special Screw	ABA1240
	11	Screw	ACZ40P080FMC
	12	Speaker 66 (Tweeter)	D66AP45-56L
	13	Cone Speaker	APV1048
	14	Caster	AMR2547
NSP	15	VR Holder	ANG1956
	16	Special Screw	SBA-140
NSP	17	CRT Front Holder	ANG2118
	18	Screw M5	ABA1189
NSP	19	Under Screen Metal B	ANG2009
	20	Mirror Frame V 64W	ANG2315
	21	Mirror 64	AMR3113
NSP	22	Upper Screen Metal B	ANG2002
NSP	23	Under Screen Metal A	ANG2003
	24	Mirror Frame H 64 W	ANG2314
NSP	25	Upper Screen Metal A	ANG2001
	26	Screen Frame Assy 64W	AAP1592
	27	Screen Holder Low 64W	AAP1601
	28	Screw	BYC35P160FZK
⚠	29	Focus VR (VR1)	ACX1096
	30	Screw	BBZ30P080FZK

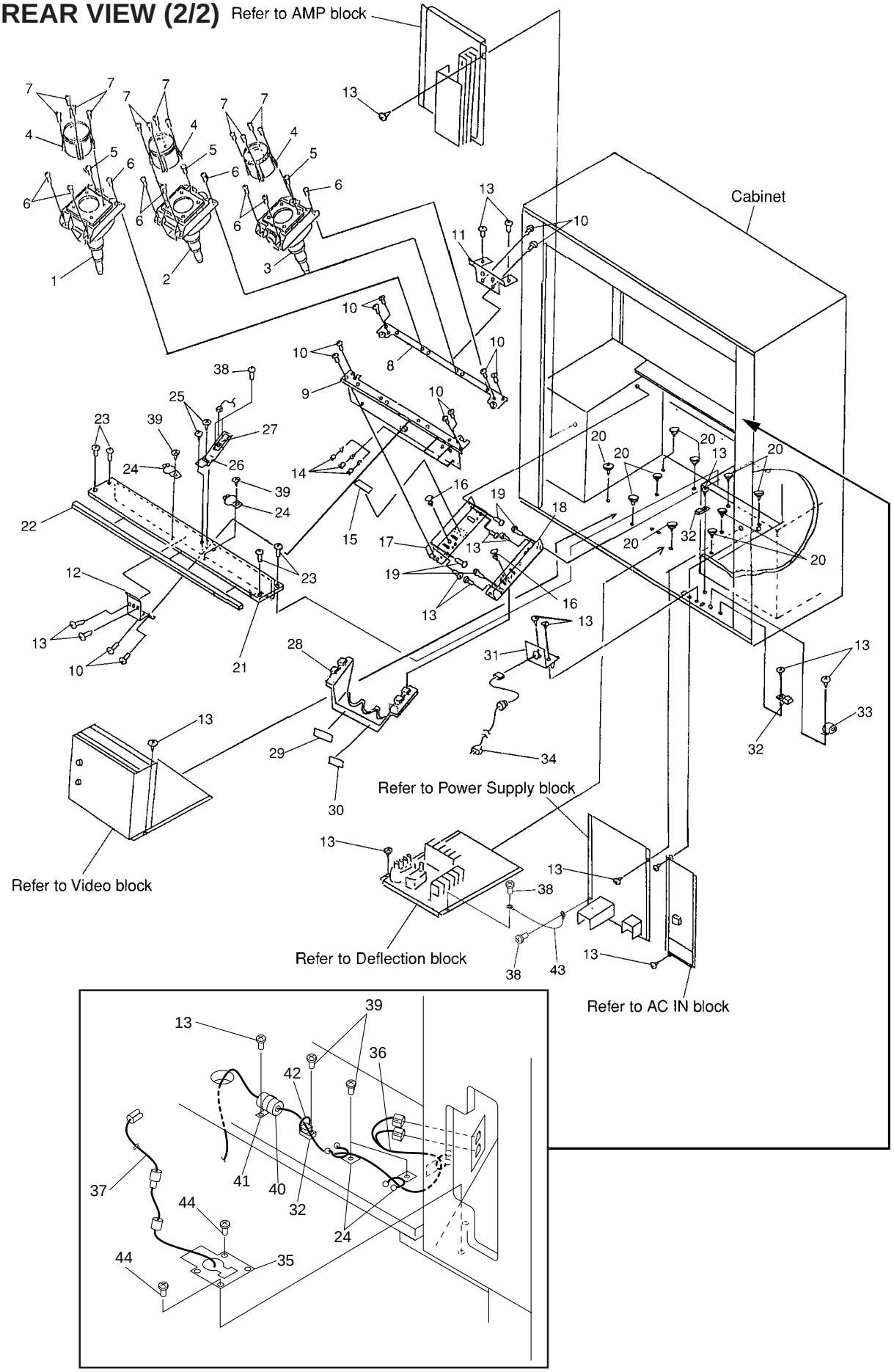
2.4 REAR VIEW (1/2)



(1) REAR VIEW (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	Mirror Case 51	AME2296
	2	Screw	ABA1240
	3	Screw	PYC40T140FZB
	4	Rear Cover	AMM2929
	5	Blind Sheet	AEC1622
	6	Mirror Case Coshion	AEC1627
	7	Screw	ABZ30P100FZK
	8	Screw	ABA1269
NSP	9	Cabinet Wire Holder	AEC1263
	10	Screen Cushion 64	AEC1778
	11	Rear Cover (DTV) Assy	ANE1577
	12	Rear Cover Sheet	AMR3135
	13	Screw	PMB40P160FZB
	14	Screw	BCZ30P080FZK
	15		

2.5 REAR VIEW (2/2)

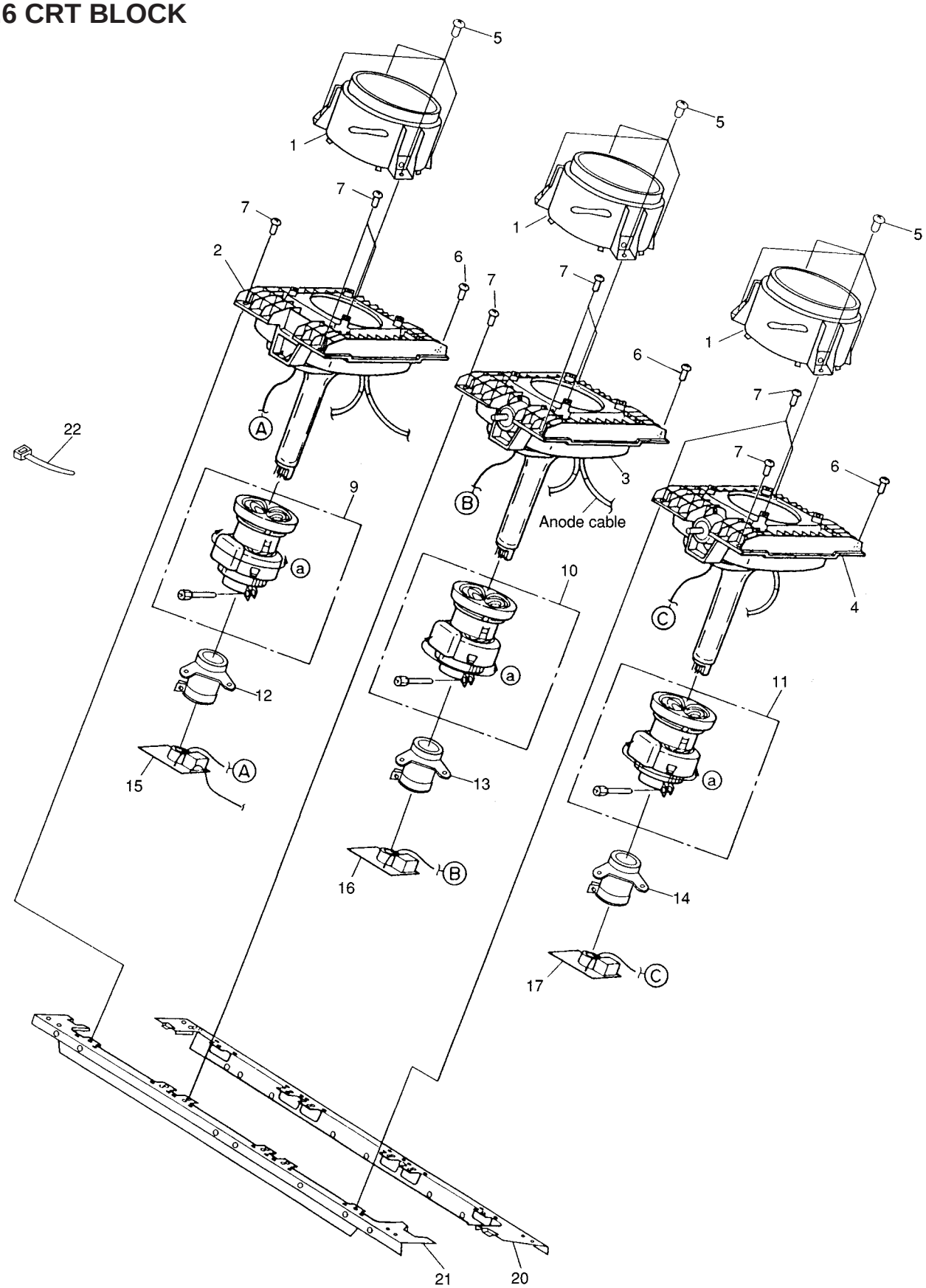


(1) REAR VIEW (2/2) PARTS LIST

Mark	No.	Description	Part No.
☆	1	CRT Service Assy 64B	AWY1415
☆	2	CRT Service Assy G	AWY1413
☆	3	CRT Service Assy 64R	AWY1414
☆	4	Lens Assy	AMR3121
	5	Screw	FBT40P120FZK
	6	Screw	ABA1168
	7	Screw	AMZ40P080FZK
NSP	8	CRT Front Frame	ANA1541
NSP	9	CRT Rear Frame	ANA1542
	10	Screw	ACZ40P080FMC
NSP	11	CRT Front Holder	ANG2118
NSP	12	CRT Rear Holder	ANG2119
	13	Screw	ABA1240
	14	Cord Holder	AEC1257
NSP	15	Tube Label	AAX2497
	16	Rivet	AEC-441
NSP	17	CRT Stand Holder R	ANA1497
NSP	18	CRT Stand Holder L	ANA1496
	19	Screw	PMB50P250FZB
	20	Special Screw	ABA1121
NSP	21	Back Cover Panel	AMM2939
	22	Back Cover Cushion	AEC1779
	23	Screw	ABA1241
NSP	24	Cabinet Wire Holder	AEC1263
	25	Screw	ABA1210
NSP	26	Fixing Metal	ANG1958
	27	SR Assy	AWZ6340
NSP	28	Tray	AMR2563
NSP	29	Solder Warning Label	AAX2672
NSP	30	Warning Label (KC)	AAX1797
NSP	31	AC Cord Holder A	ANG2307
NSP	32	Bind Holder	AEC1785
	33	Ferrite Core	ATX1033
⚠	34	AC Power Cord	ADG1180
NSP	35	AC Cord Holder B	ANG2311
	36	Wire Harness C (J14)	ADX2491
⚠	37	AC Power Cord B	ADG1181
	38	Screw	BBZ30P080FZK
	39	Screw	ABA1271
	40	Ferrite Core	ATX1031
NSP	41	Nylon Clamp 18N	AEC1789
	42	Nylon Binder	AEC-093
	43	1P Lead Wire (J1)	ADX2505
	44	Screw	PMB40P250FZB

Mark	No.	Description	Part No.
OTHERS			
		1P Lead Wire (J3)	ADX2231
		1P Lead Wire (J4)	ADX2232
		1P Lead Wire (J5)	ADX2233
		1P Lead Wire (J6)	ADX2289
		1P Lead Wire (J7)	ADX2290
		1P Lead Wire (J8)	ADX2291
		4P Housing Wire (J2)	ADX2484
		Wire Harness A (J10)	ADX2485
		Wire Harness B (J11)	ADX2487

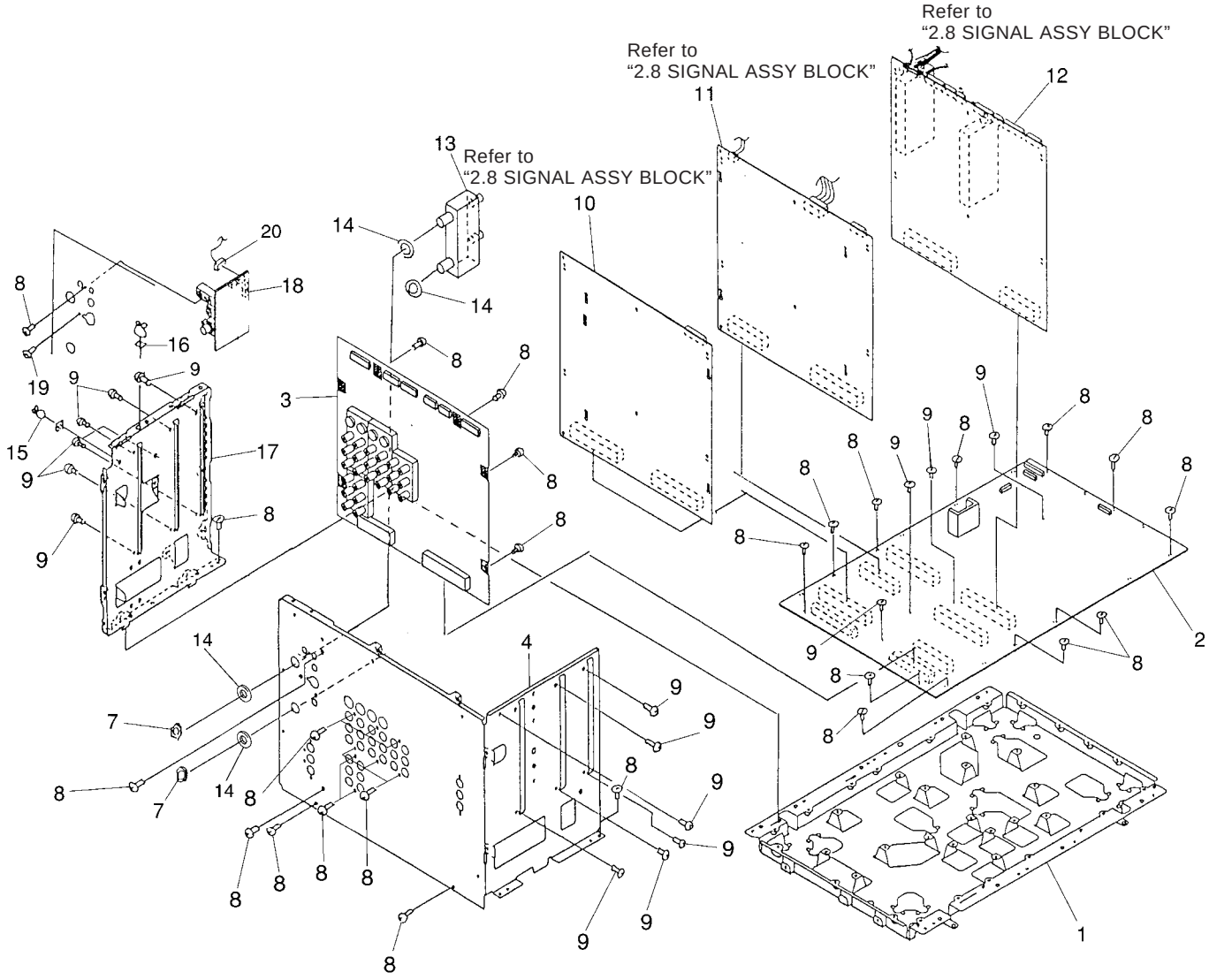
2.6 CRT BLOCK



(1) CRT BLOCK PARTS LIST

Mark	No.	Description	Part No.
☆	1	Lens Assy	AMR3121
☆	2	CRT Service Assy 64R	AWY1414
☆	3	CRT Service Assy G	AWY1413
☆	4	CRT Service Assy 64B	AWY1415
	5	Screw	AMZ40P080FZK
	6	Screw	FBT40P120FZK
	7	Screw	ABA1168
	8	.....	
⚠	9	Deflection Yoke (L1)	ATL1136
⚠	10	Deflection Yoke (L2)	ATL1136
⚠	11	Deflection Yoke (L3)	ATL1136
⚠	12	VM Coil (L4)	ATL1137
⚠	13	VM Coil (L5)	ATL1137
⚠	14	VM Coil (L6)	ATL1137
	15	R.CRT DRIVE Assy	AWZ6344
	16	G. CRT DRIVE Assy	AWZ6345
	17	B. CRT DRIVE Assy	AWZ6346
	18	.....	
	19	.....	
NSP	20	CRT Rear Frame 62	ANA1542
NSP	21	CRT Front Frame 62	ANA1541
	22	Nylon Binder	AEC-093

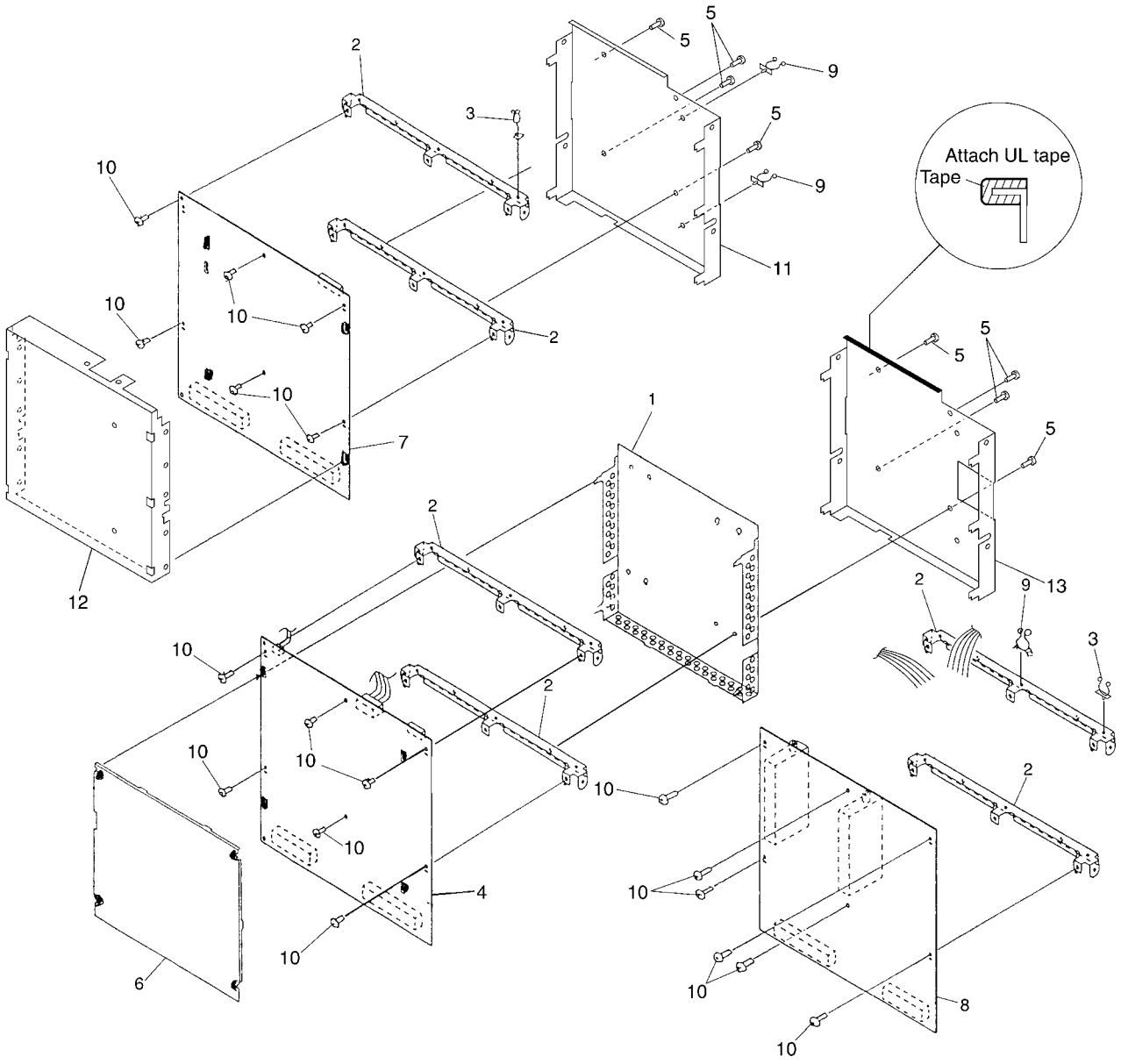
2.7 VIDEO BLOCK



(1) VIDEO BLOCK PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Video Chassis	ANA1584
	2	VIDEO Assy	AWV1716
	3	AV / IO Assy	AWV1714
	4	Rear Panel	ANC2321
	5	.....	
	6	.....	
	7	Nut	ABN-087
	8	Screw	BBZ30P080FZK
	9	Screw	BBZ30P080FCU
	10	TUNER u-COM Assy	AWV1715
	11	SIGNAL Assy	AWV1717
	12	SUB VIDEO Assy	AWV1718
	13	RF Switch	AXF1098
	14	Washer	WAXOF160N100
NSP	15	Lead Clamper M	AEC1611
NSP	16	Cable Clip	AEP-214
NSP	17	PCB Side Holder	ANG2305
	18	SR BNC Assy	AWZ6342
	19	Screw	BCZ30P080FZK
	20	4P Housing Wire (J13)	ADX2490

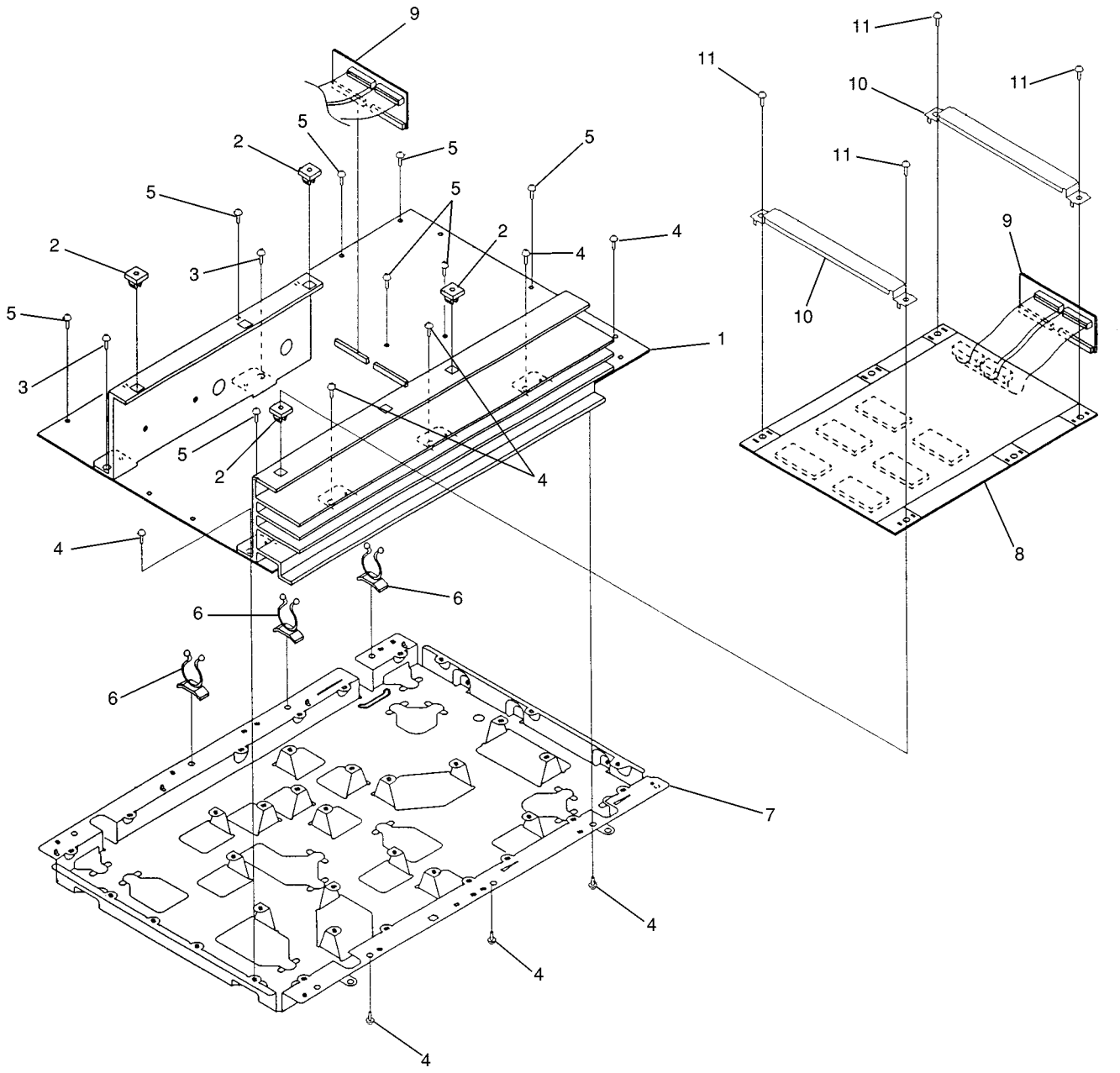
2.8 SIGNAL ASSY BLOCK



(1) SIGNAL ASSY BLOCK PARTS LIST

Mark	No.	Description	Part No.
	1	Shield Cover	ANK1562
NSP	2	PCB Sub-Frame	ANG2304
NSP	3	Lead Clamper M	AEC1611
	4	SUB VIDEO Assy	AWV1718
	5	Screw	BBZ30P080FCU
NSP	6	Analog Shield B	ANK1537
	7	SIGNAL Assy	AWV1717
	8	TUNER u-COM Assy	AWV1715
NSP	9	Cable Clip D3M	AEC1783
	10	Screw	ABZ30P080FCU
	11	Shield Front Cover B	ANK1592
	12	Shield Rear Cover B	ANK1596
	13	Shield Front Cover A	ANK1591

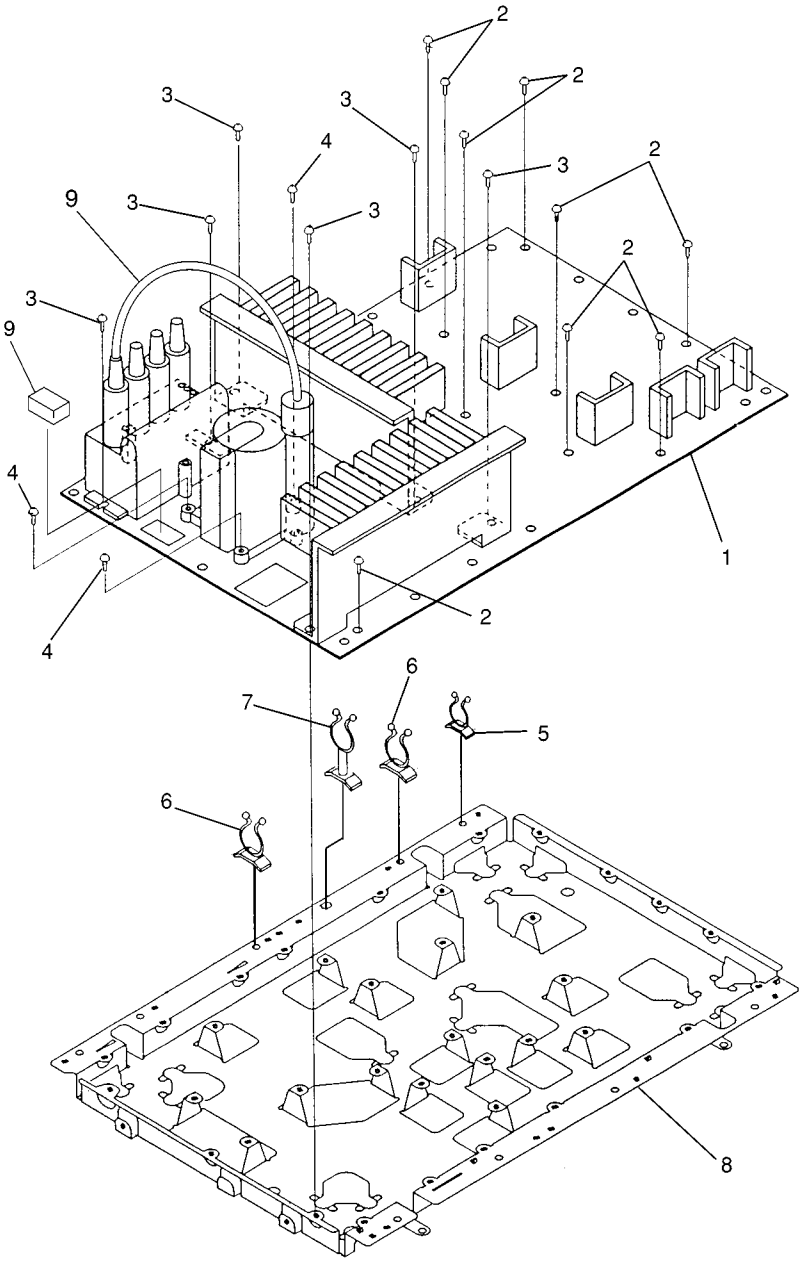
2.9 AMP BLOCK



(1) AMP BLOCK PARTS LIST

Mark	No.	Description	Part No.
	1	AMP Assy	AWV1712
	2	Grommet	AEC1418
	3	Special Screw	ABA1099
	4	Screw	ABZ30P100FZK
	5	Screw	BBZ30P080FZK
NSP	6	Cable Clip D3M	AEC1783
NSP	7	AMP Chassis	ANA1585
	8	CONVER . DAC Assy	AWZ6333
	9	CONNECTOR Assy	AWZ6335
NSP	10	Head Sink Holder	ANG2306
	11	Screw	VPZ40P120FZK
	12		

2.10 DEFLECTION BLOCK

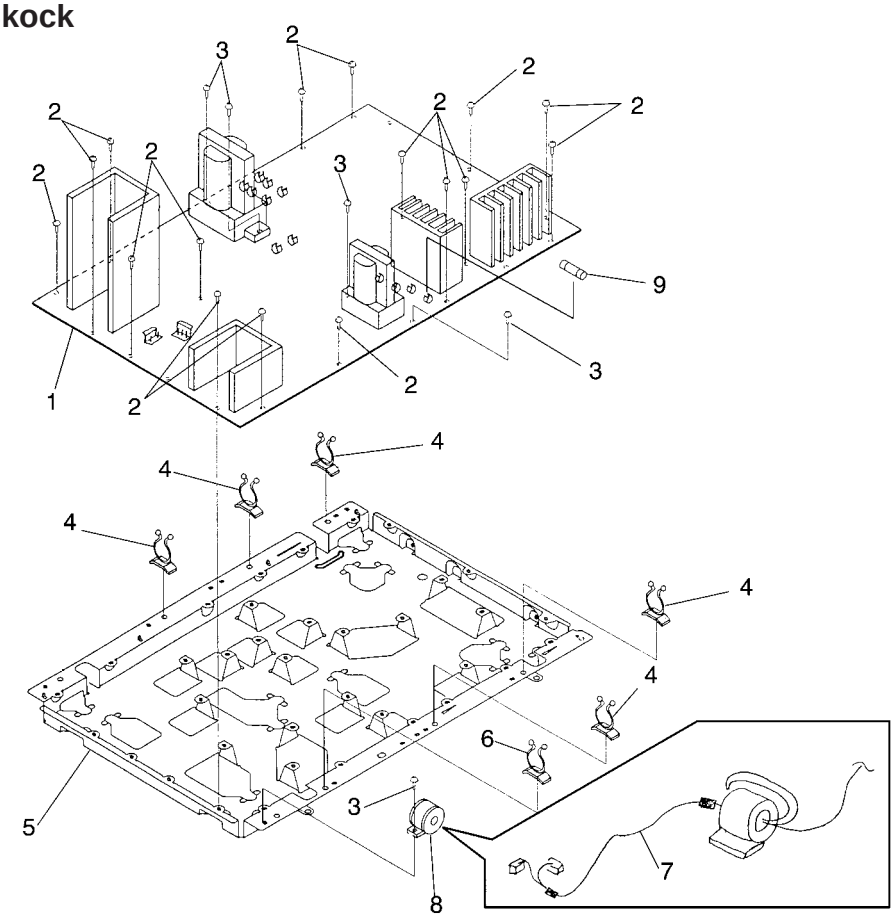


(1) DEFLECTION BLOCK PARTS LIST

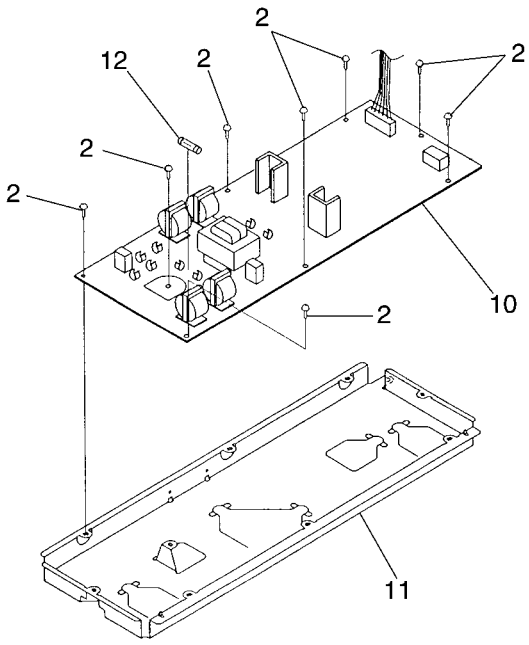
Mark	No.	Description	Part No.
☆	1	DEFLECTION SERVICE Assy	AWV1731
	2	Screw	BBZ30P080FZK
	3	Screw	ABZ30P100FZK
	4	Screw	VBZ30P200FMC
NSP	5	Cable Clip D3S	AEC1782
NSP	6	Cable Clip D3M	AEC1783
NSP	7	Cable CliP	AEC1325
NSP	8	DF Chassis	ANA1583
	9	Shield Case	ANK1510

2.11 POWER SUPPLY / AC IN BLOCK

Power Supply Bkock



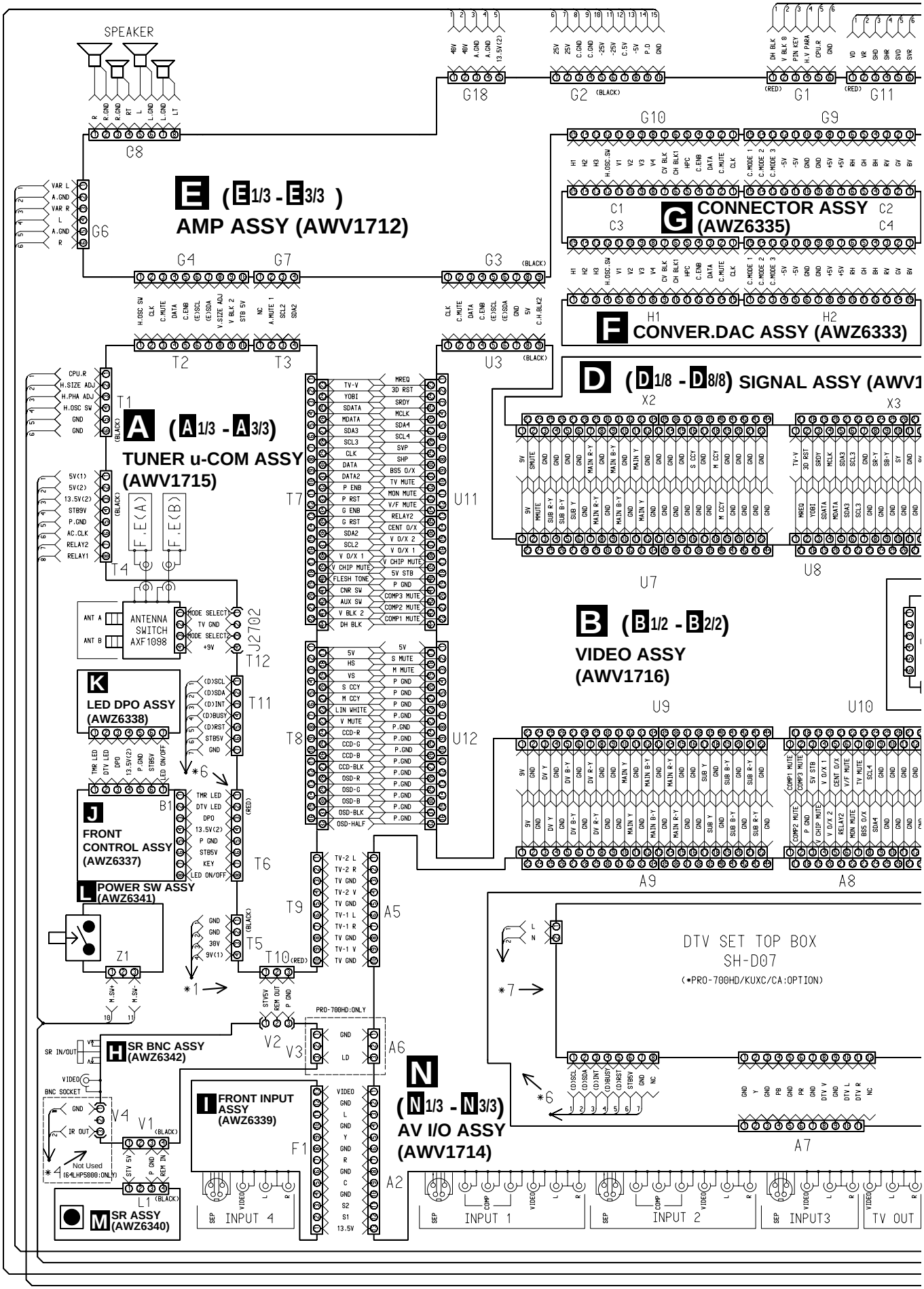
AC IN Block

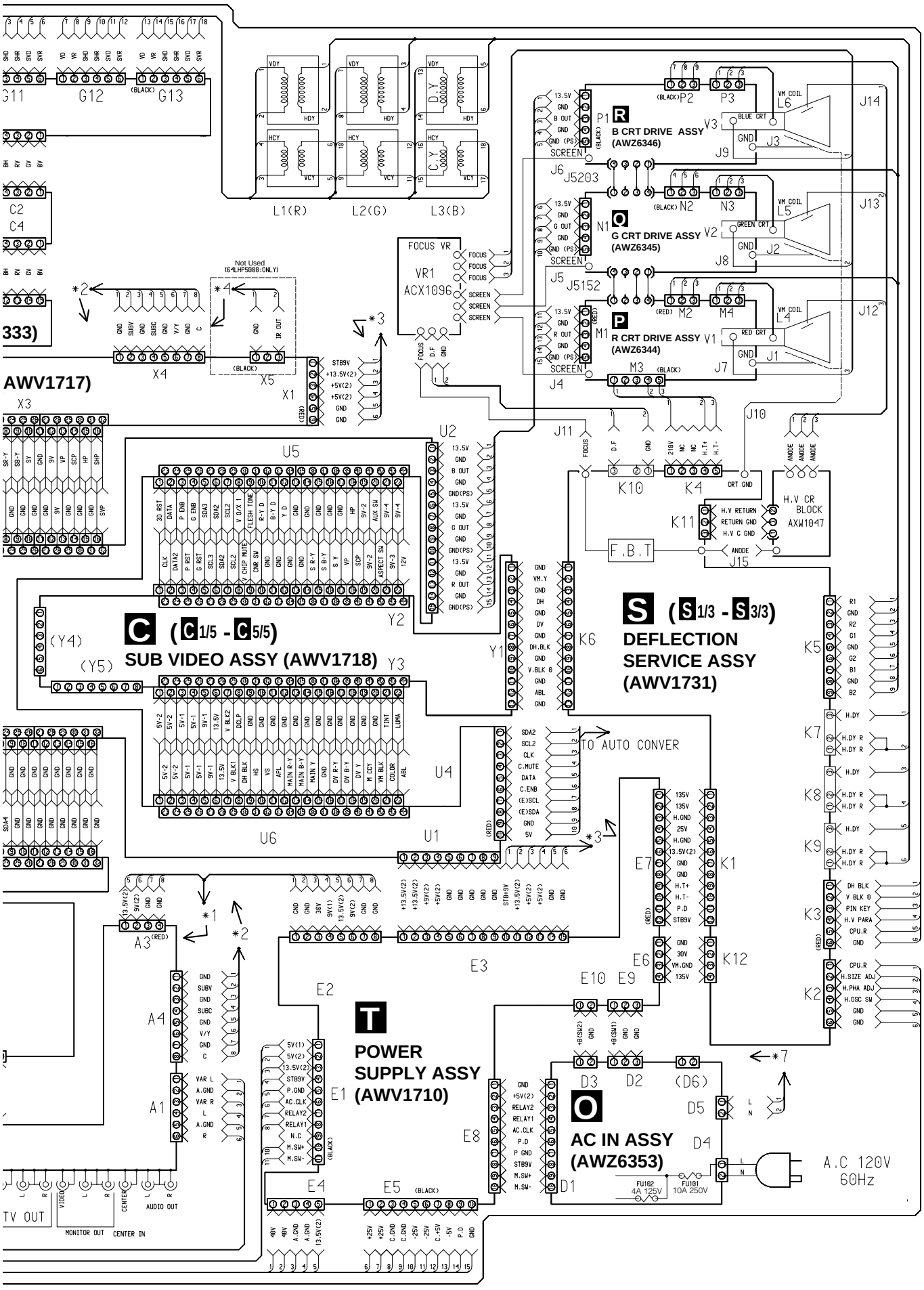


(1) POWER SUPPLY / AC IN BLOCK PARTS LIST

Mark	No.	Description	Part No.
	1	POWER SUPPLY Assy	AWV1710
	2	Screw	BBZ30P080FZK
	3	Screw	ABZ30P100FZK
NSP	4	Cable Clip D3S	AEC1782
NSP	5	PS Chassis	ANA1582
NSP	6	Cable Clip D3M	AEC1783
	7	Wire Harness D (J15)	ADX2489
	8	Ferrite Core	ATX1033
⚠	9	Fuse (6.3A/125V)	REK1085
	10	AC IN Assy	AWZ6353
NSP	11	LF Chassis	ANA1586
⚠	12	Fuse (500mA/125V)	AEK1010

3. SCHEMATIC DIAGRAM 3.1. OVERALL CONNECTION DIAGRAM

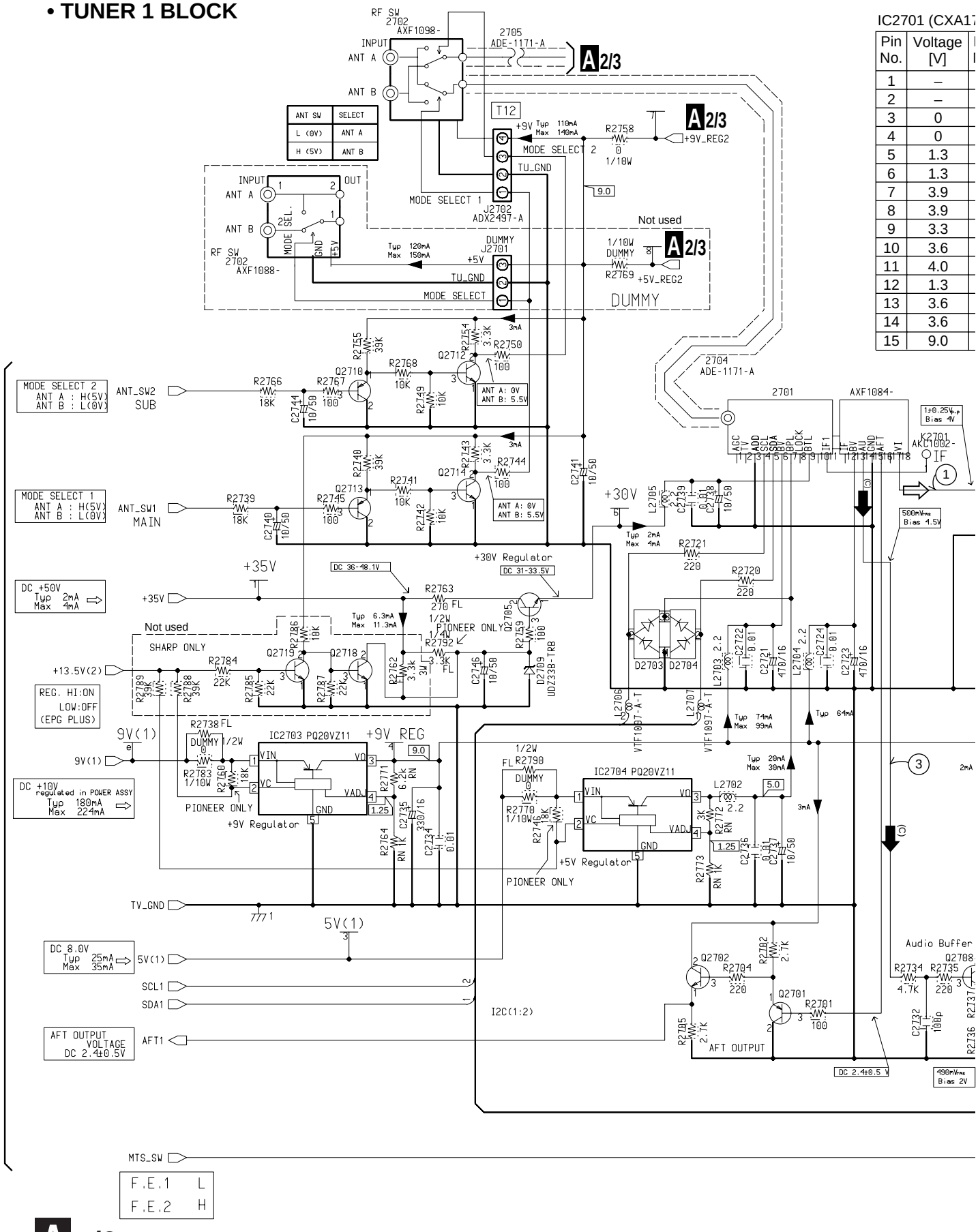



R
B CRT DRIVE ASSY
(AWZ6346)
Q
G CRT DRIVE ASSY
(AWZ6345)
P
R CRT DRIVE ASSY
(AWZ6344)
C (C1/5 - C5/5)
SUB VIDEO ASSY (AWV1718)
S (S1/3 - S3/3)
DEFLECTION
SERVICE ASSY
(AWV1731)
T
POWER
SUPPLY ASSY
(AWV1710)
O
AC IN ASSY
(AWZ6353)
AWV1717)
333)
L1(R)
L2(G)
L3(B)
VR1
ACX1096
FOCUS VR
Not Used
(64LHP5000:ONLY)
TO AUTO CONVER
H.V CR
BLOCK
AXW1047
A.C 120V
60Hz
TV OUT
MONITOR OUT
CENTER IN
AUDIO OUT

3.2 TUNER u-COM ASSY (1/3)

A TUNER u-COM ASSY (1/3) (AWV1715)

• TUNER 1 BLOCK



IC2701 (CXA17

Pin No.	Voltage [V]
1	–
2	–
3	0
4	0
5	1.3
6	1.3
7	3.9
8	3.9
9	3.3
10	3.6
11	4.0
12	1.3
13	3.6
14	3.6
15	9.0

(CXA1734S)

oltage [V]	Pin No.	Voltage [V]
–	16	2.9
–	17	0
0	18	3.6
0	19	3.6
1.3	20	3.5
1.3	21	4.0
3.9	22	1.7
3.9	23	4.0
3.3	24	3.9
3.6	25	3.9
4.0	26	1.8
1.3	27	1.3
3.6	28	4.0
3.6	29	4.0
9.0	30	–

FRONT END
M2701 (M2801)

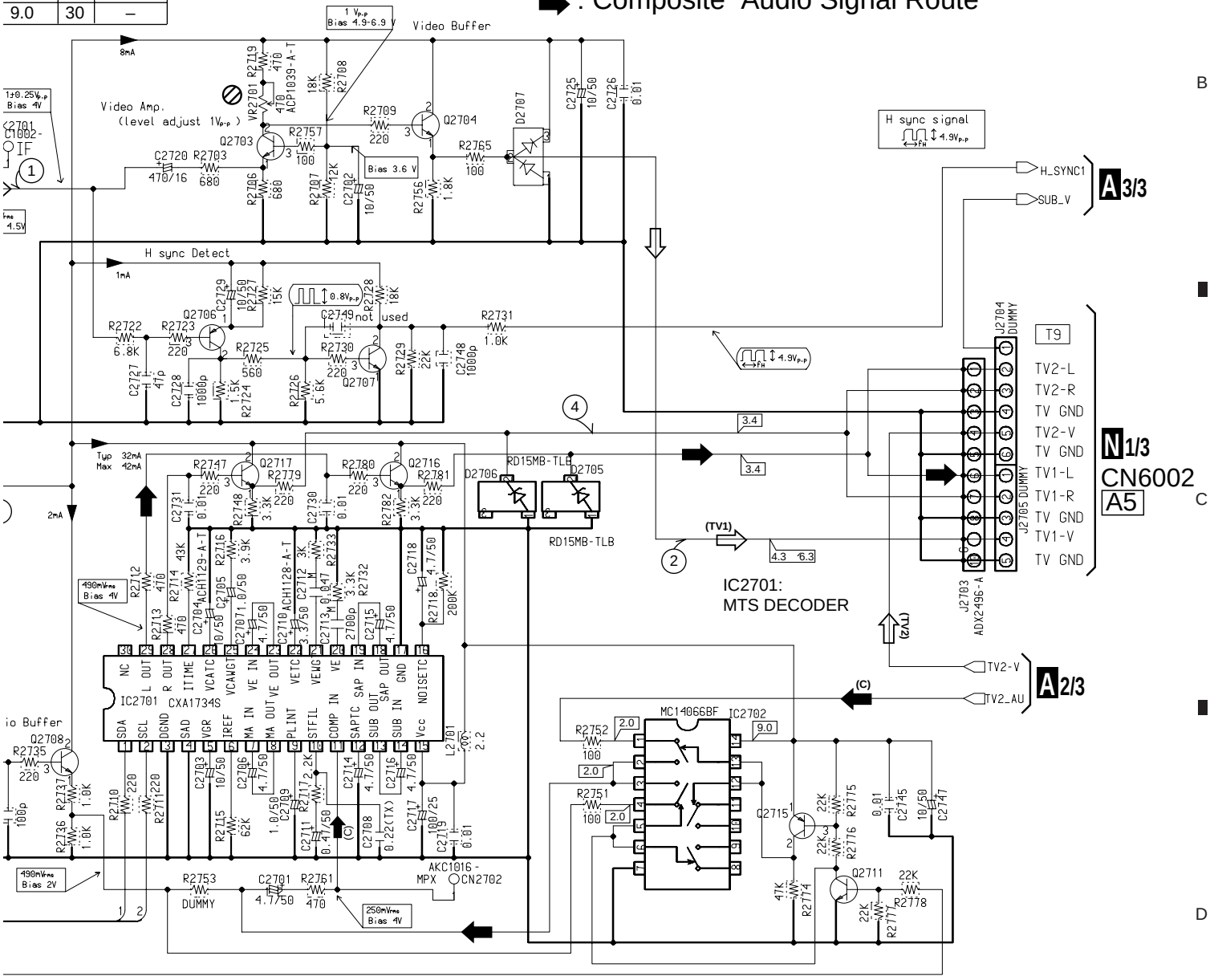
Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	7.0	10	–
2	1.0	11	–
3	0*	12	–
4	–	13	9.0
5	–	14	4.7
6	9.0	15	0
7	5.0	16	3.0
8	–	17	–
9	33	18	4.7

*M2801 [5V]

Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

2SA1162(YGR)-TLB
2SC2712(YGR)-TLB
1SS352-TRB
1SS226-TRB

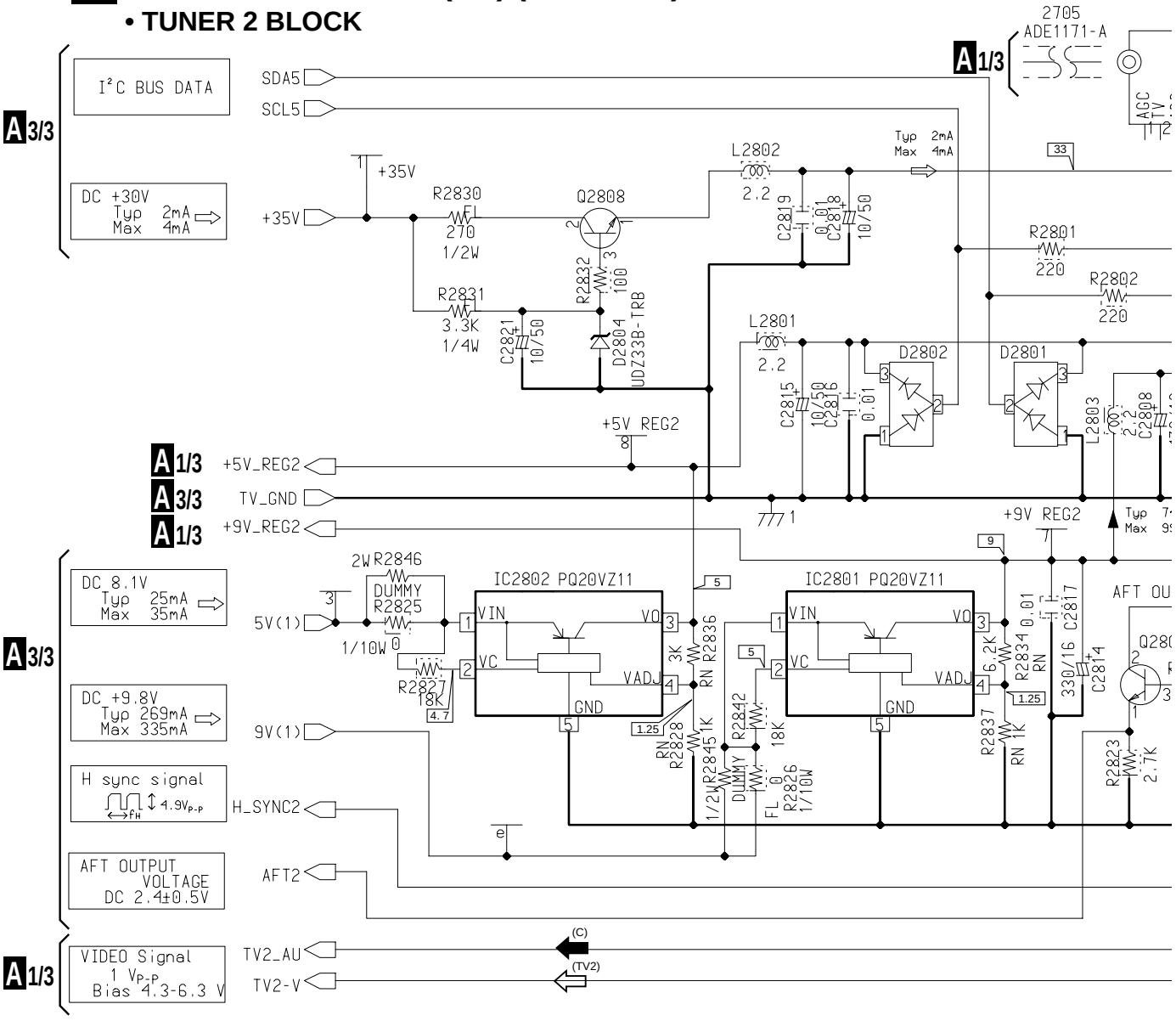
SIGNAL ROUTE
⇨: Video Signal Route (TV1,TV2)
➡: Audio Signal Route (TV1.L,TV2.L)
(C)➡: Composite Audio Signal Route



3.3 TUNER u-COM ASSY (2/3)

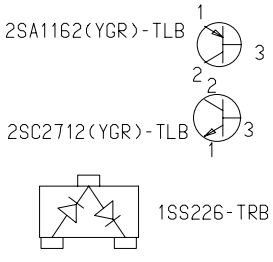
A TUNER u-COM ASSY(2/3) (AWV1715)

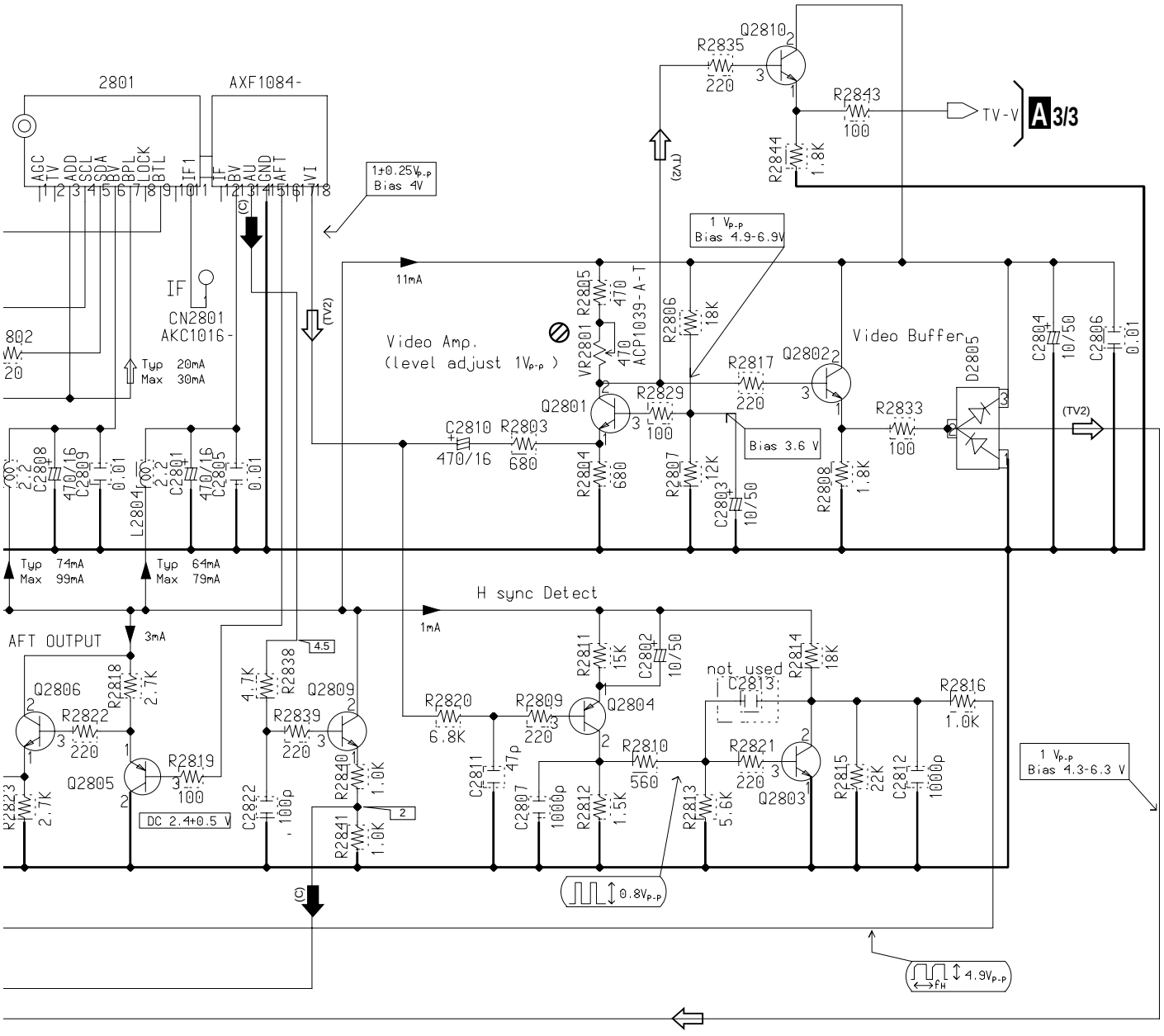
• TUNER 2 BLOCK



1.RESISTERS indicated in 1/2W,1/4W,1/10W,1WFL,2WFL 5%
tolerance unless otherwise noted K;Ω , M;Ω
(F)+1% , (G)+2% , (K)+10% , (M)+20% tolerance

2.CAPACITORS indicated in capasity (uF)/(V) unless otherwise noted pF
indicated without voltage is 50V except electrolytic capacitor





SIGNAL ROUTE

(TV2) ⇨ : Video Signal Route (TV2)

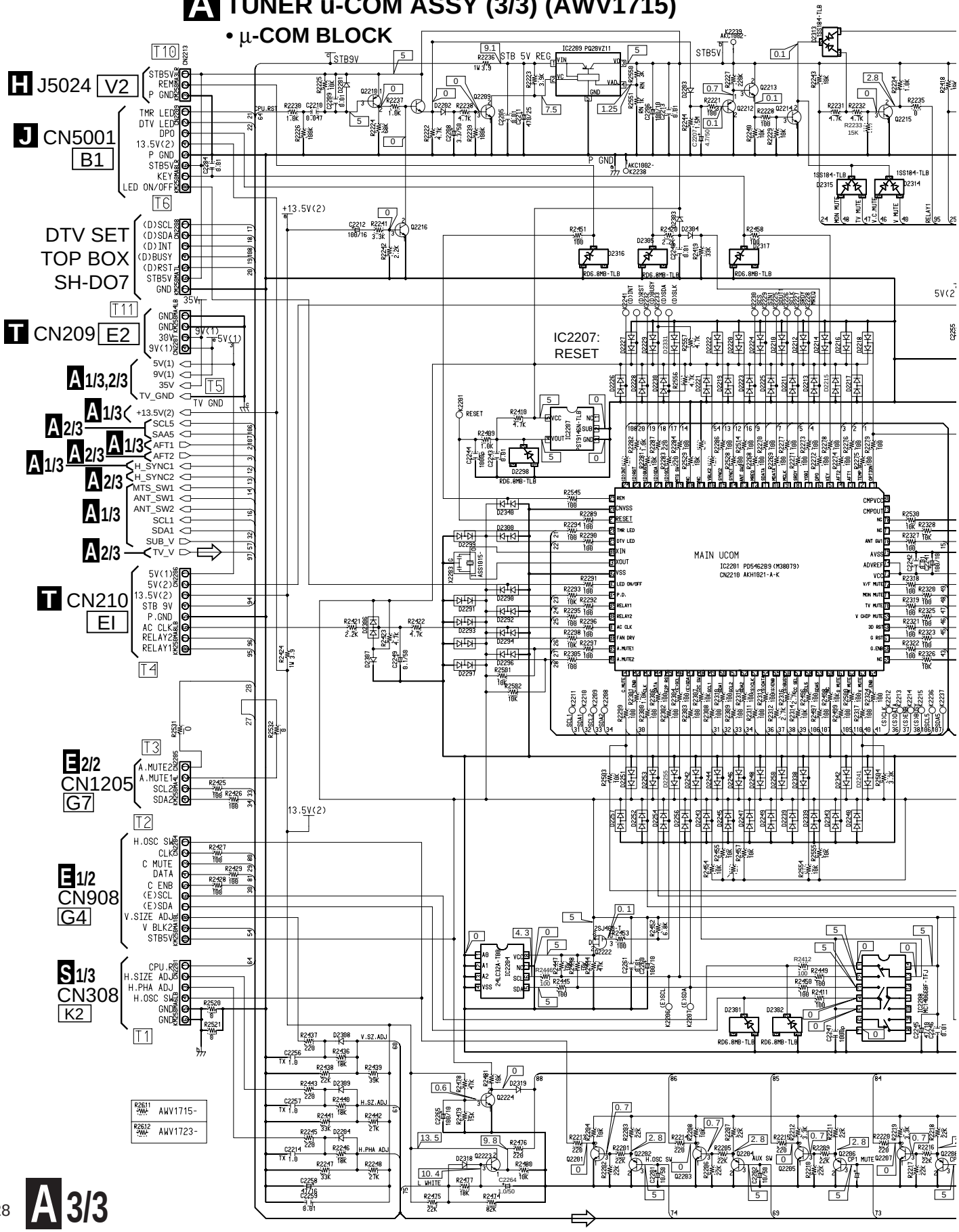
(C) ➡ : Composite Audio Signal Route

3.4 TUNER u-COM ASSY (3/3)

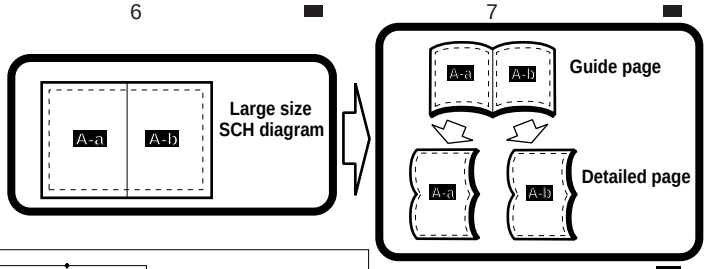
A-a 3/3

A TUNER u-COM ASSY (3/3) (AWV1715)

• μ-COM BLOCK



A-b 3/3



B 2/2 CN5605 U11

B 2/2 CN5604 U12

IC2205: RESET

5V REG IC2210 PQ20VZ11

SUB UCOM

CCD UCOM

Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k kΩ
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS352-TRB
1SS226-TRB
AKX9002-A-T

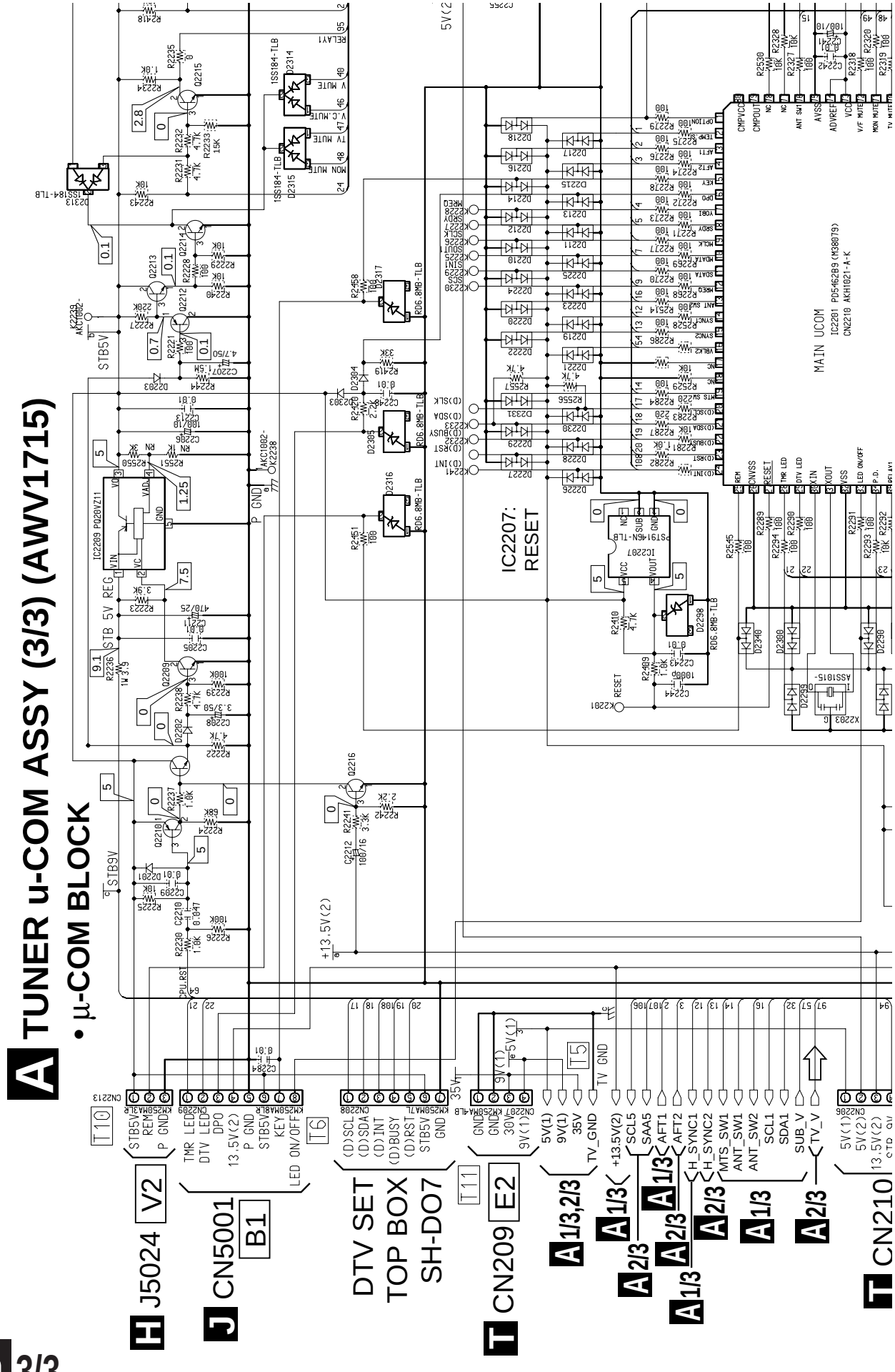
SIGNAL ROUTE
⇨: Video Signal Route

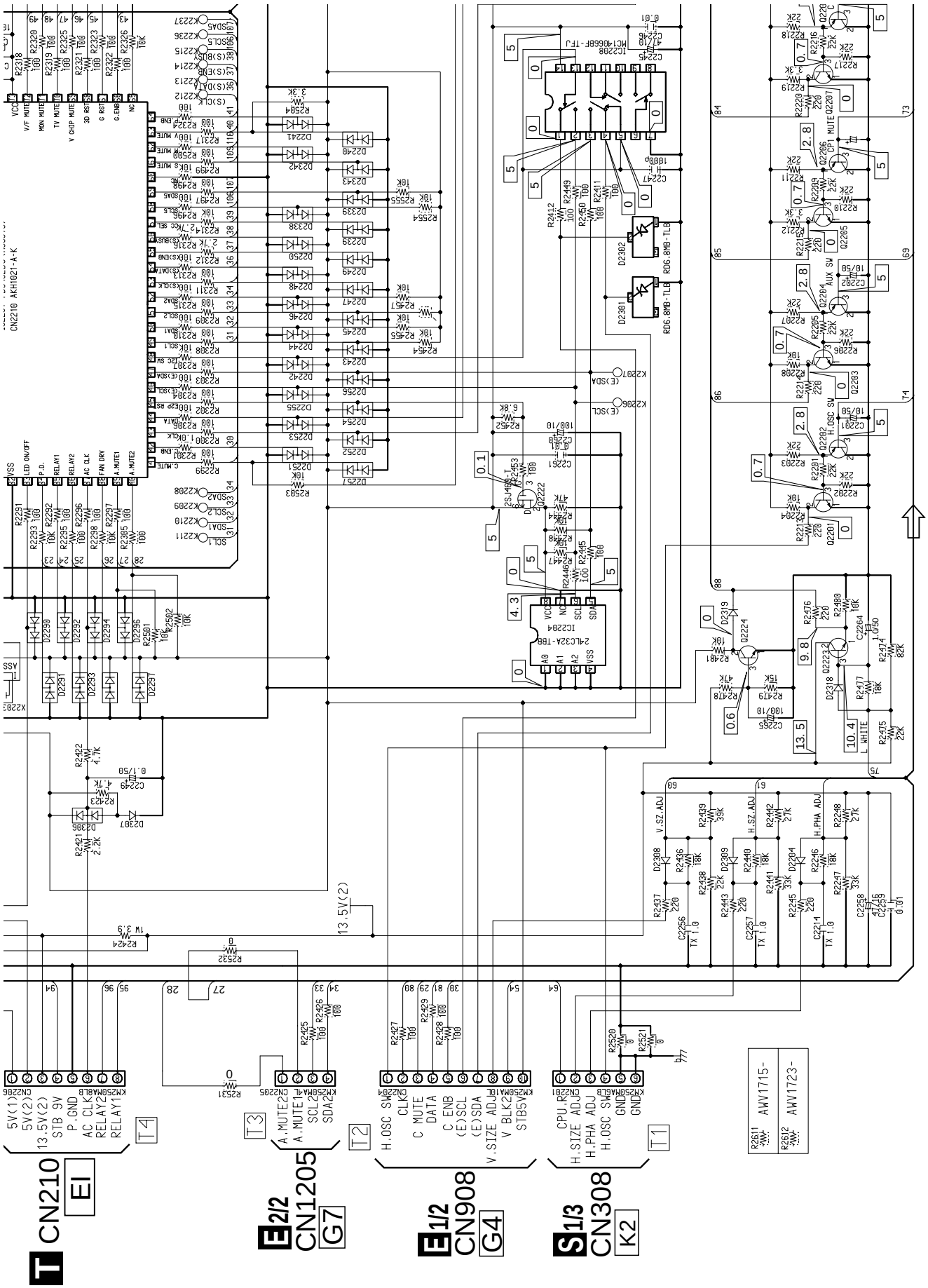
Note: As for voltages of IC2201, IC2202 and IC2203 refer to page 108.

3/3 A-a A-b 3/3

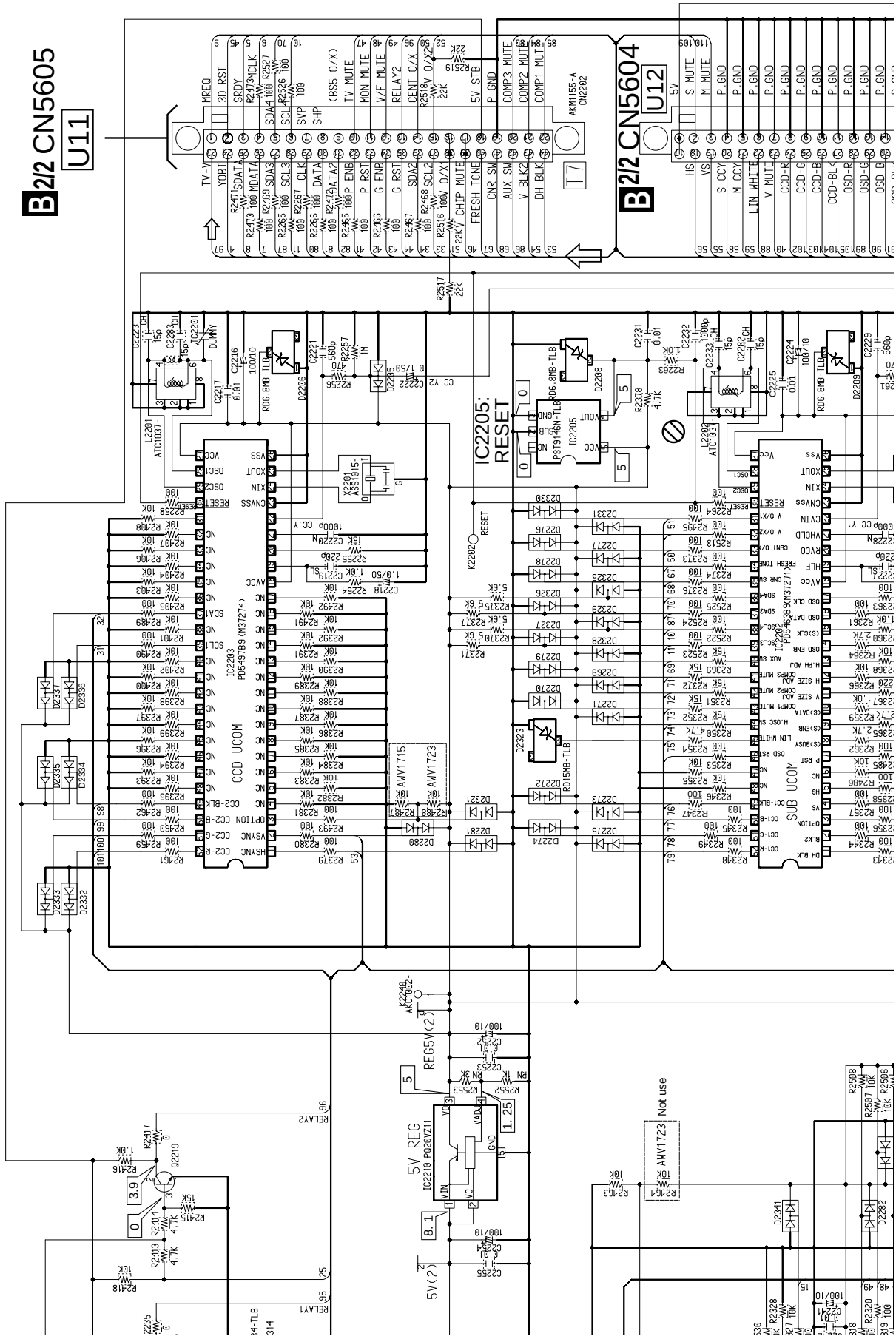
A TUNER u-COM ASSY (3/3) (AWV1715)

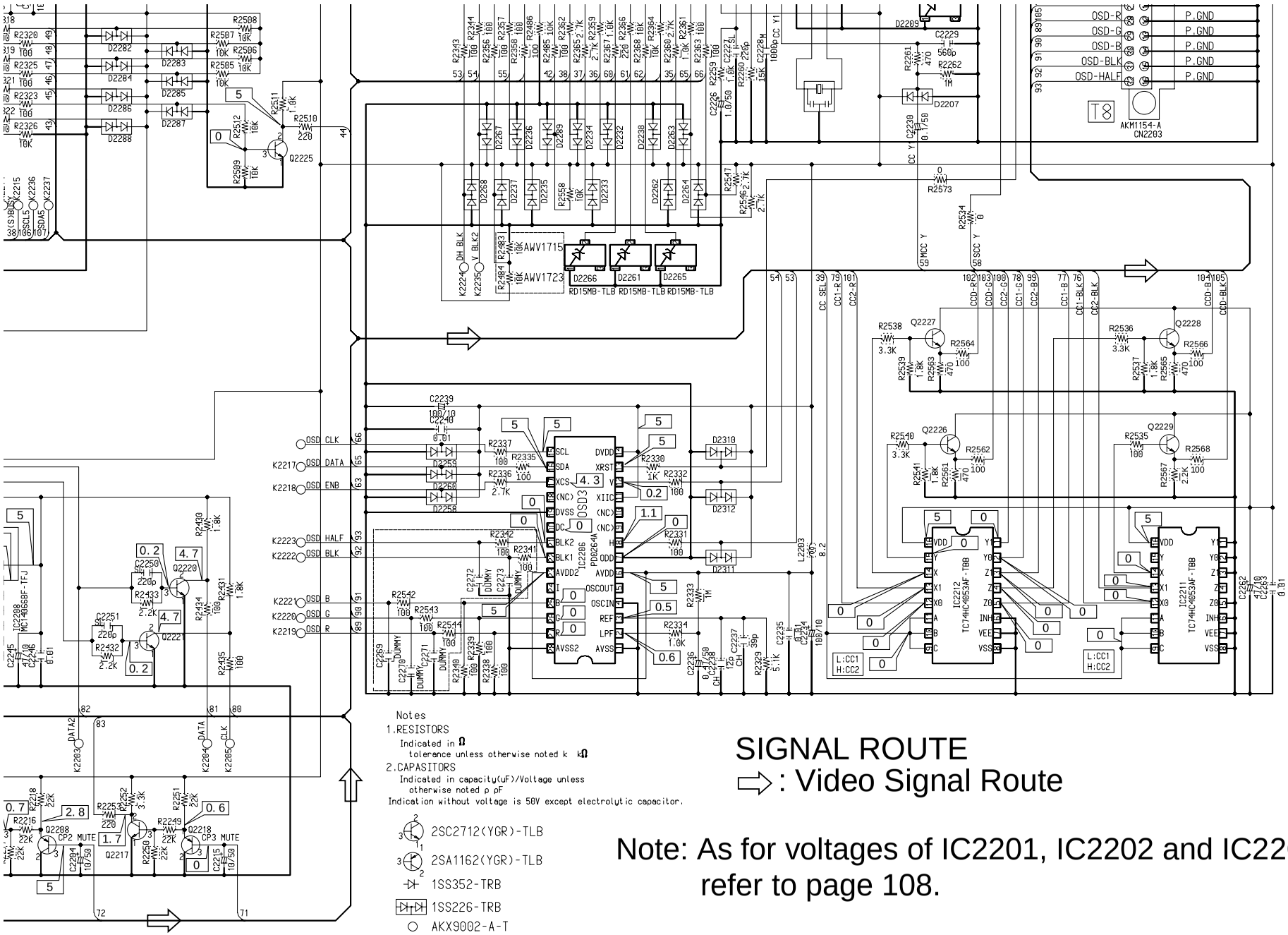
- µ-COM BLOCK




3/3 A-a A-b 3/3
T CN210 EI
E2/2 CN1205 G7
E1/2 CN908 G4
S1/3 CN308 K2
T4
T3
T2
T1
5V(1)
5V(2)
STB 9V
P.GND
AC CLK
RELAY2
RELAY1
A.MUTE2
A.MUTE1
SCL
SDA
H.OSC SW
CLK
C MUTE
DATA
C ENB
(E)SCL
(E)SDA
V.SIZE ADJ
V BLK
STB5V
CPU.P
H.SIZE ADJ
H.PHA ADJ
H.OSC SW
GND
GND
13.5V(2)
AWV1715-
AWV1723-

3/3 A-a A-b 3/3


B2/2 CN5605 U11
B2/2 CN5604 U12
IC2205: RESET
CCD UCOM
SUB UCOM
5V REG
Not use

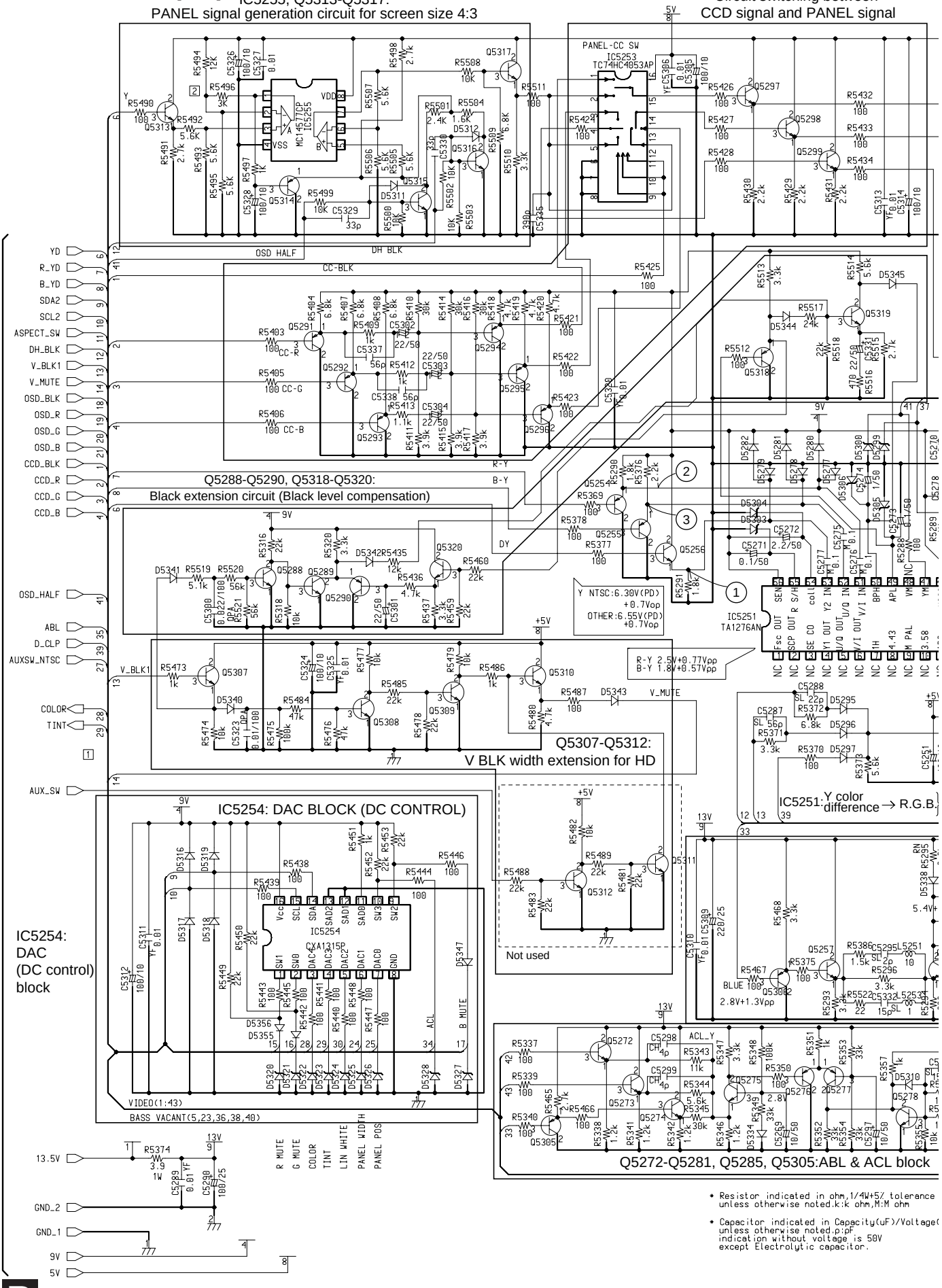


SIGNAL ROUTE

⇨ : Video Signal Route

Note: As for voltages of IC2201, IC2202 and IC2203 refer to page 108.

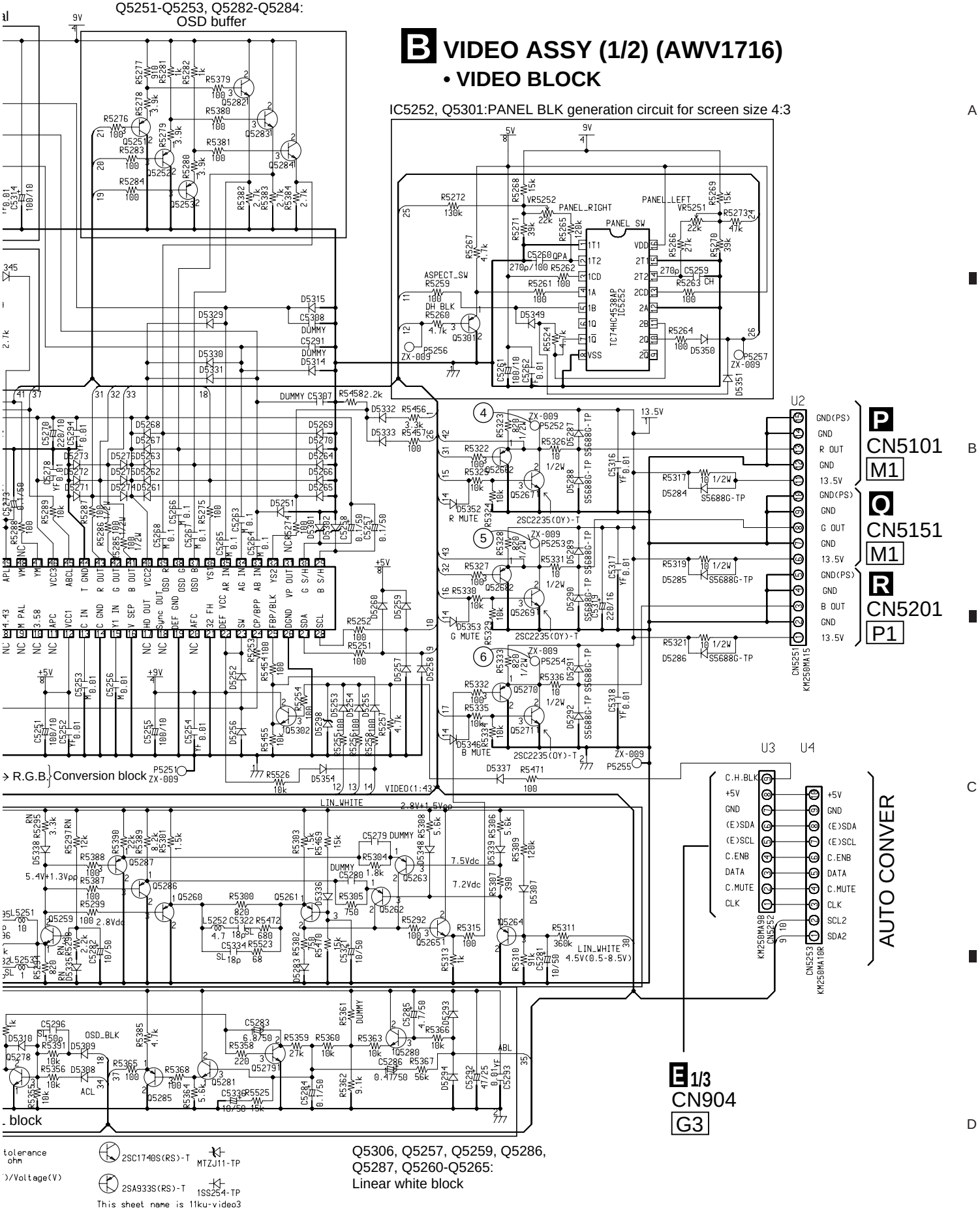
PRO-700HD
3.5 VIDEO ASSY (1/2)



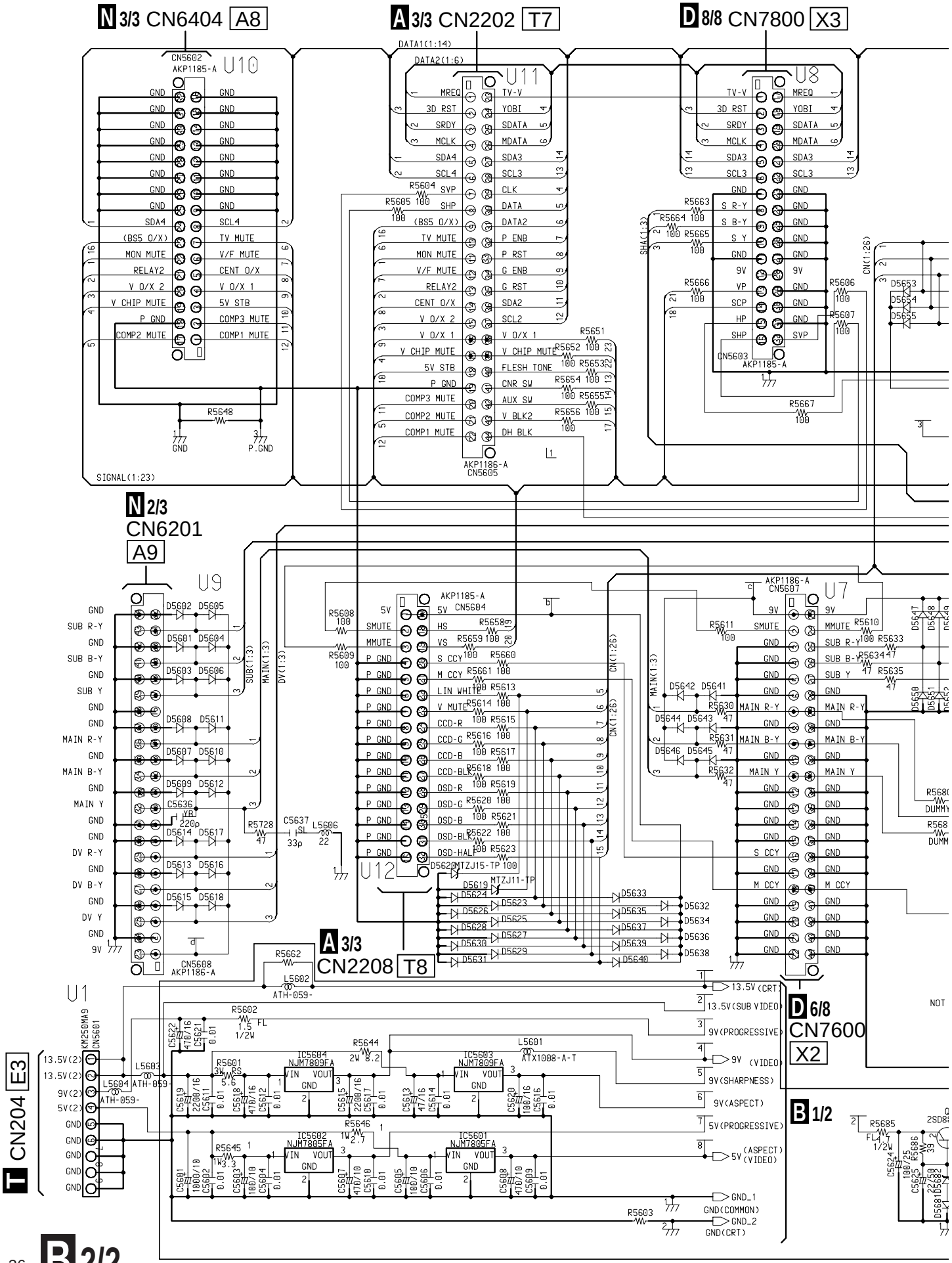
- Resistor indicated in ohm,1/4W+5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.

B VIDEO ASSY (1/2) (AWV1716)

• VIDEO BLOCK

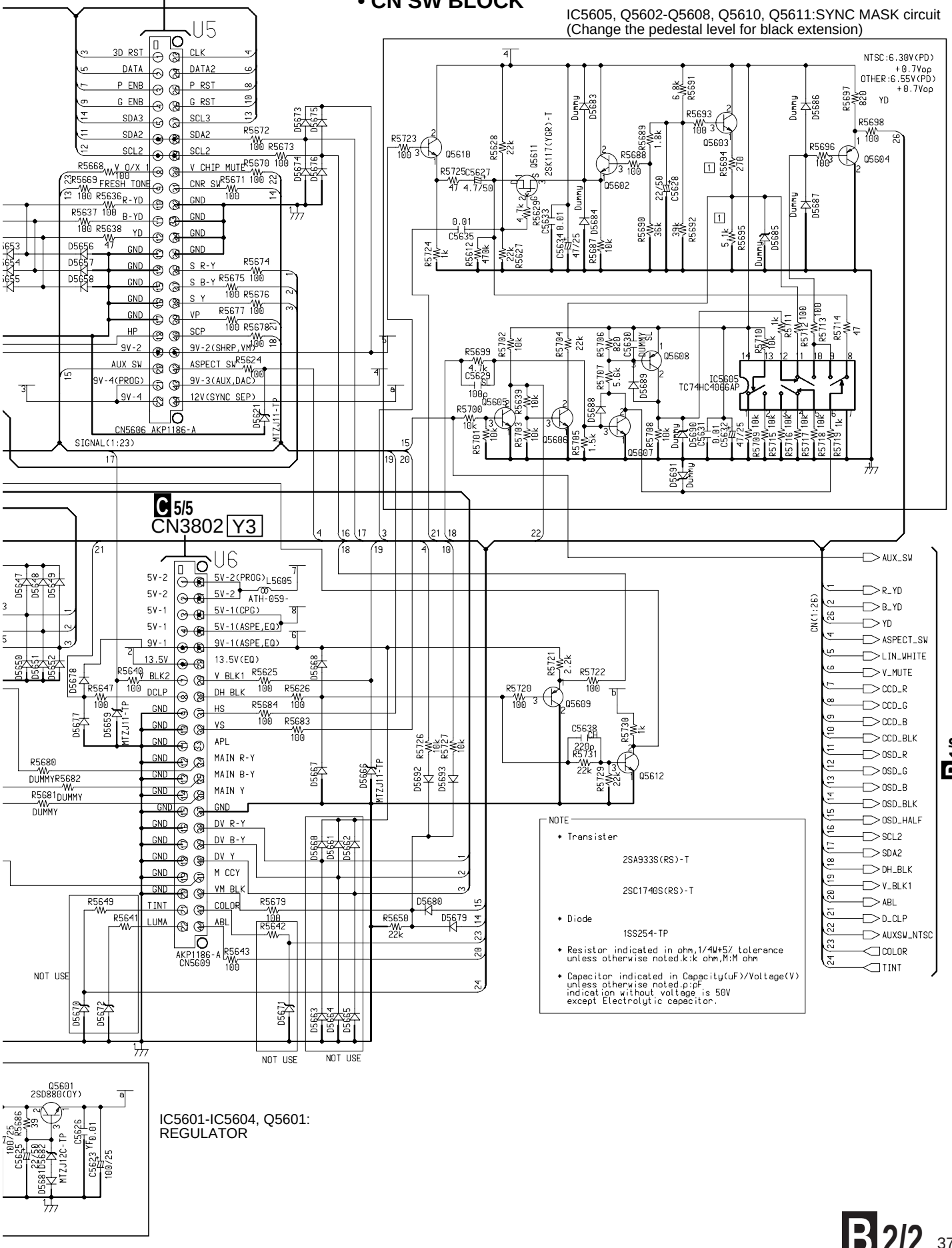


PRO-700HD
3.6 VIDEO ASSY (2/2)

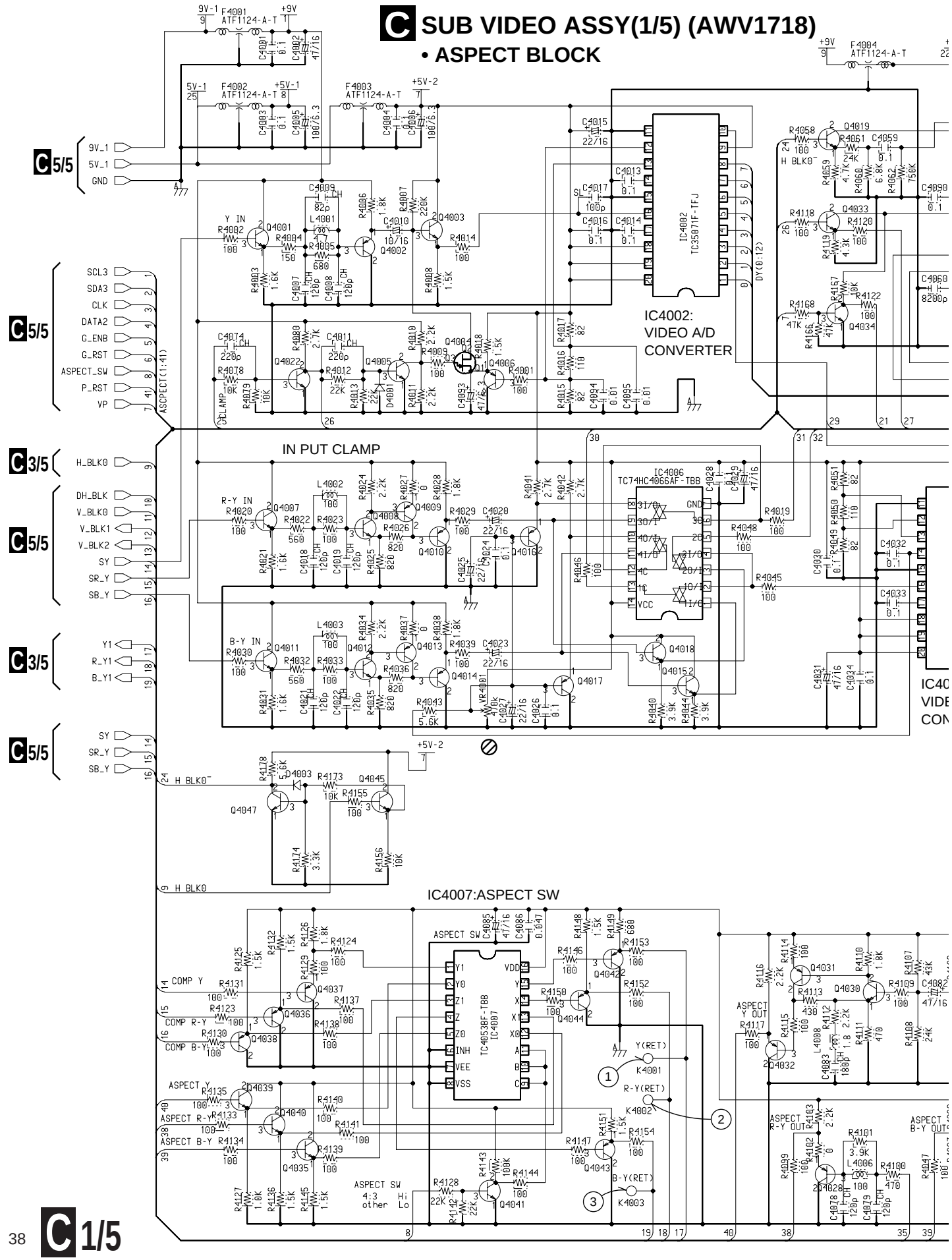


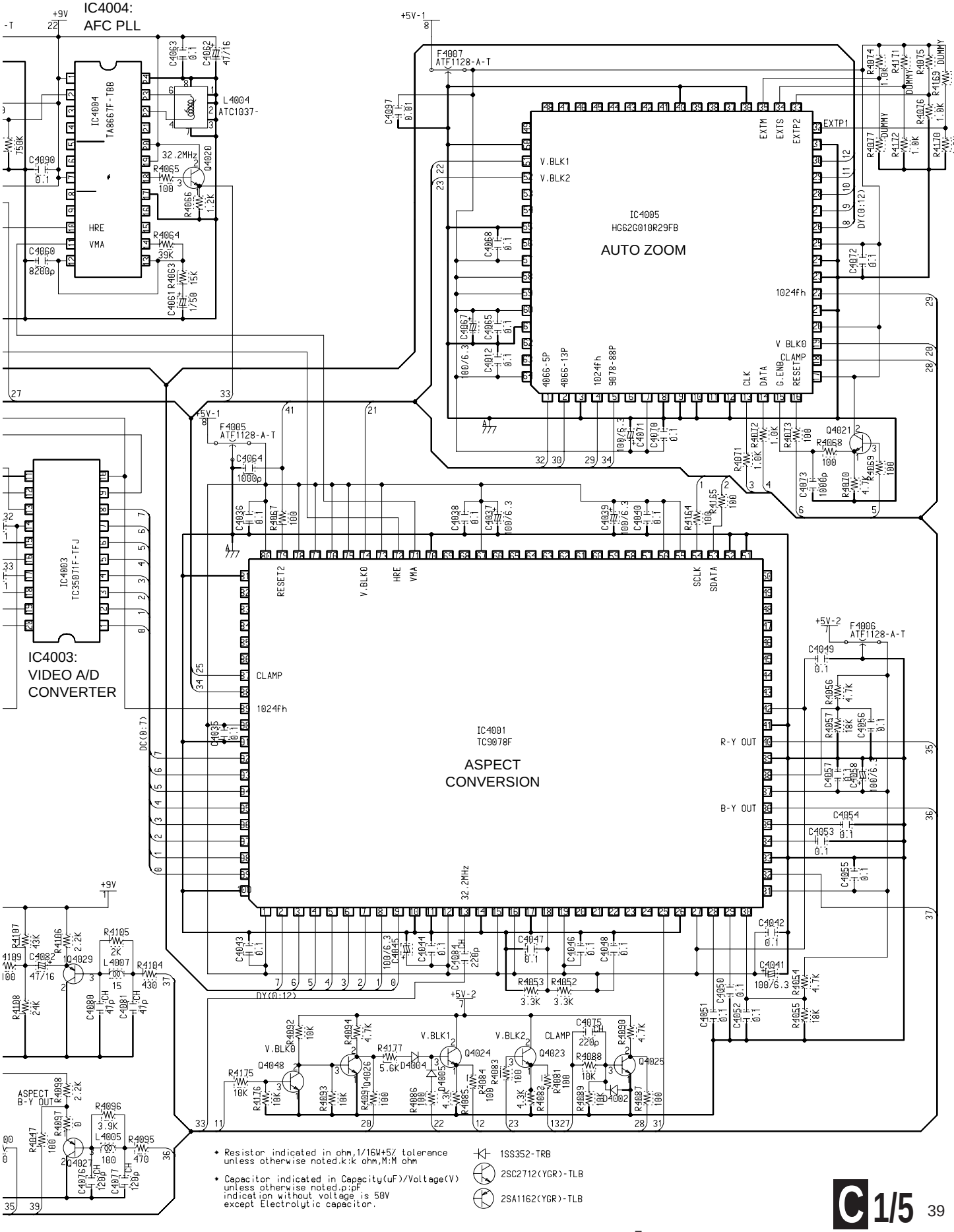
B VIDEO ASSY (2/2)(AWV1716)

• CN SW BLOCK



3.7 SUB VIDEO ASSY (1/5)





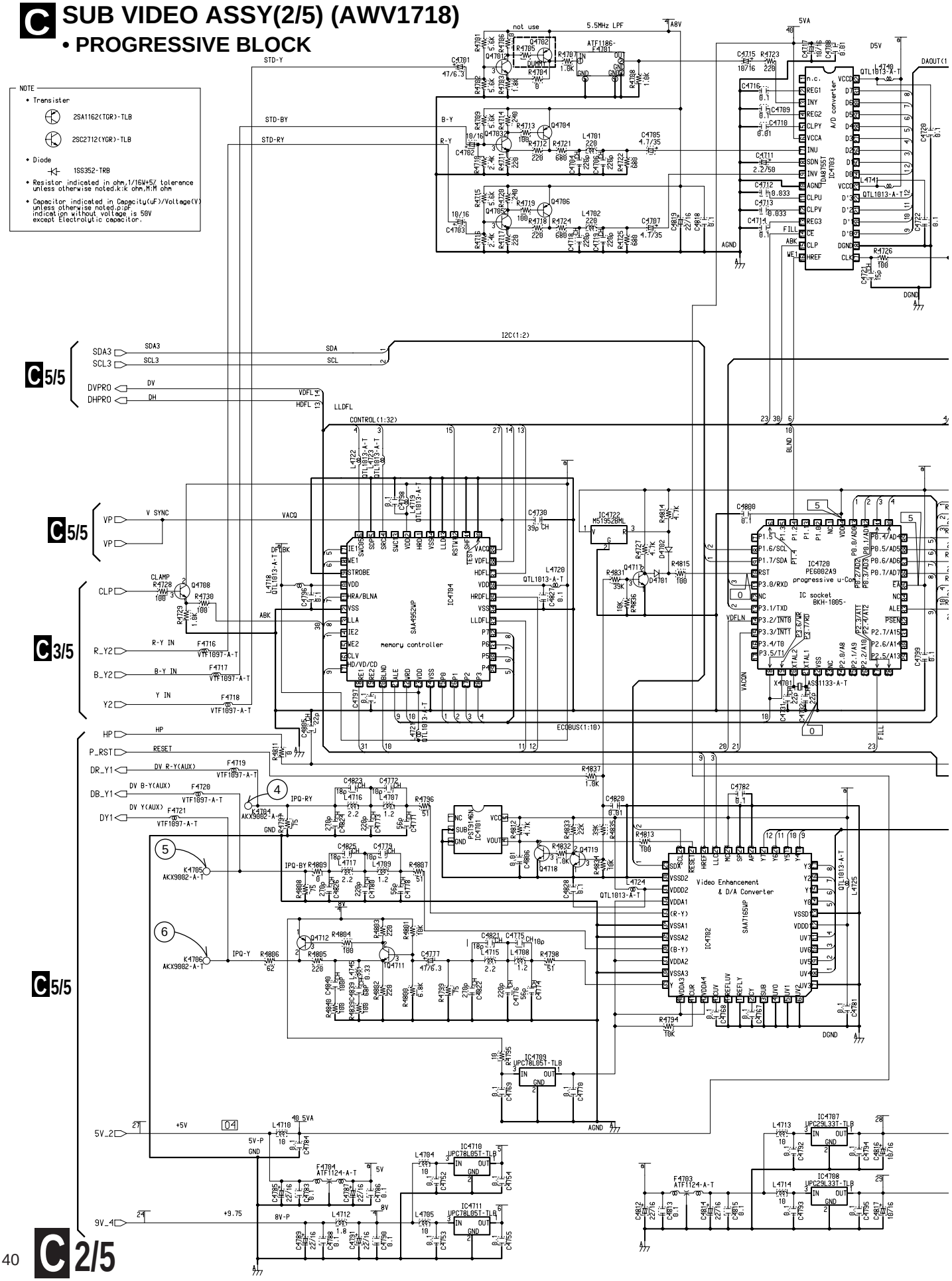
- Resistor indicated in ohm,1/16W+5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.

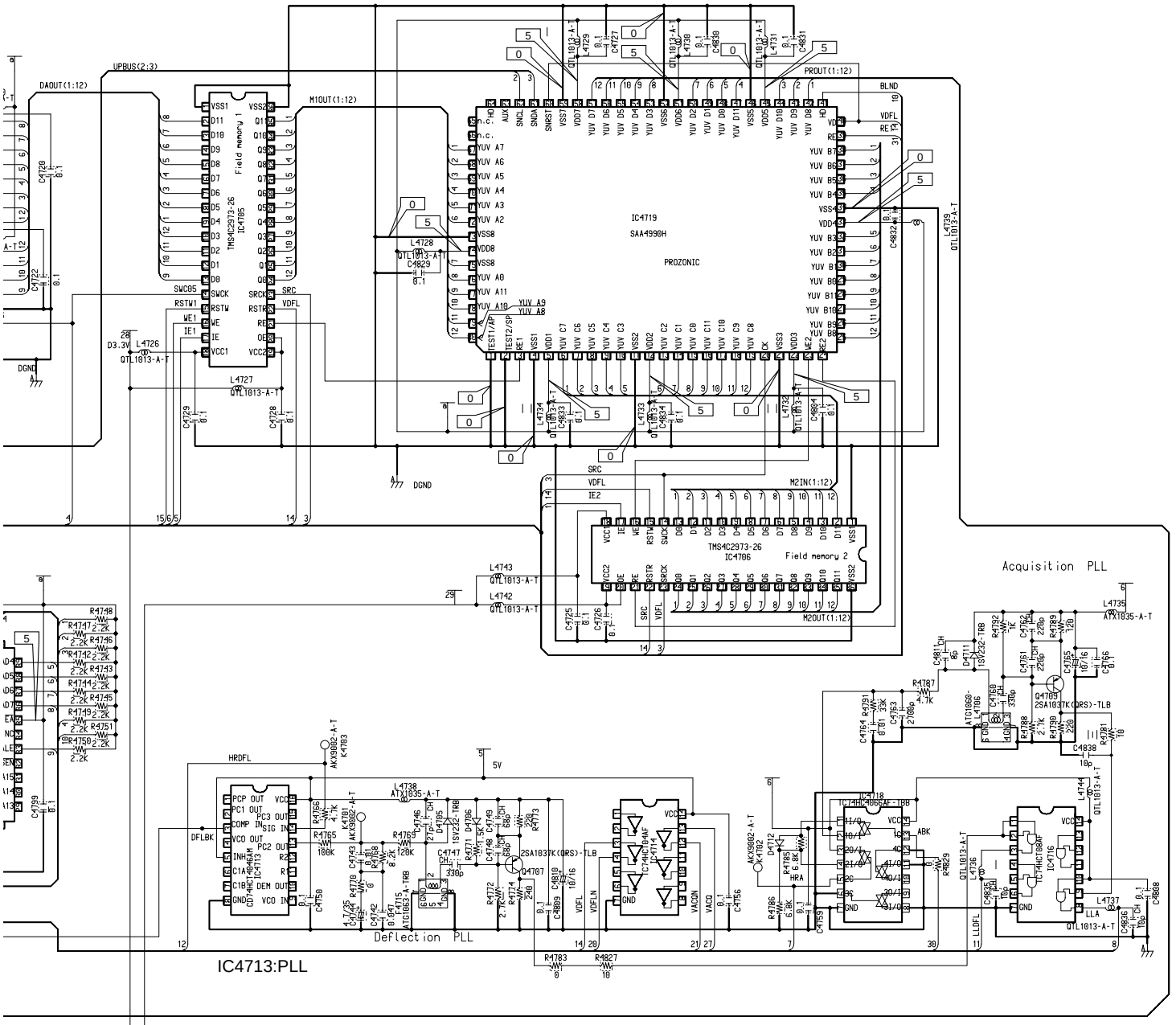
1SS352-TRB
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB

3.8 SUB VIDEO ASSY (2/5)

C SUB VIDEO ASSY(2/5) (AWV1718)

• PROGRESSIVE BLOCK





IC4702									
pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)
1	0.0	11	—	21	—	31	5.0	41	1.0
2	2.3	12	—	22	0.0	32	5.0	42	5.0
3	0.0	13	5.0	23	0.0	33	1.0	43	2.3
4	0.0	14	0.0	24	5.0	34	1.0	44	0.0
5	0.0	15	—	25	—	35	0.0		
6	0.0	16	—	26	—	36	1.0		
7	0.0	17	—	27	5.0	37	5.0		
8	—	18	—	28	—	38	0.0		
9	—	19	—	29	—	39	0.8		
10	—	20	—	30	0.0	40	5.0		

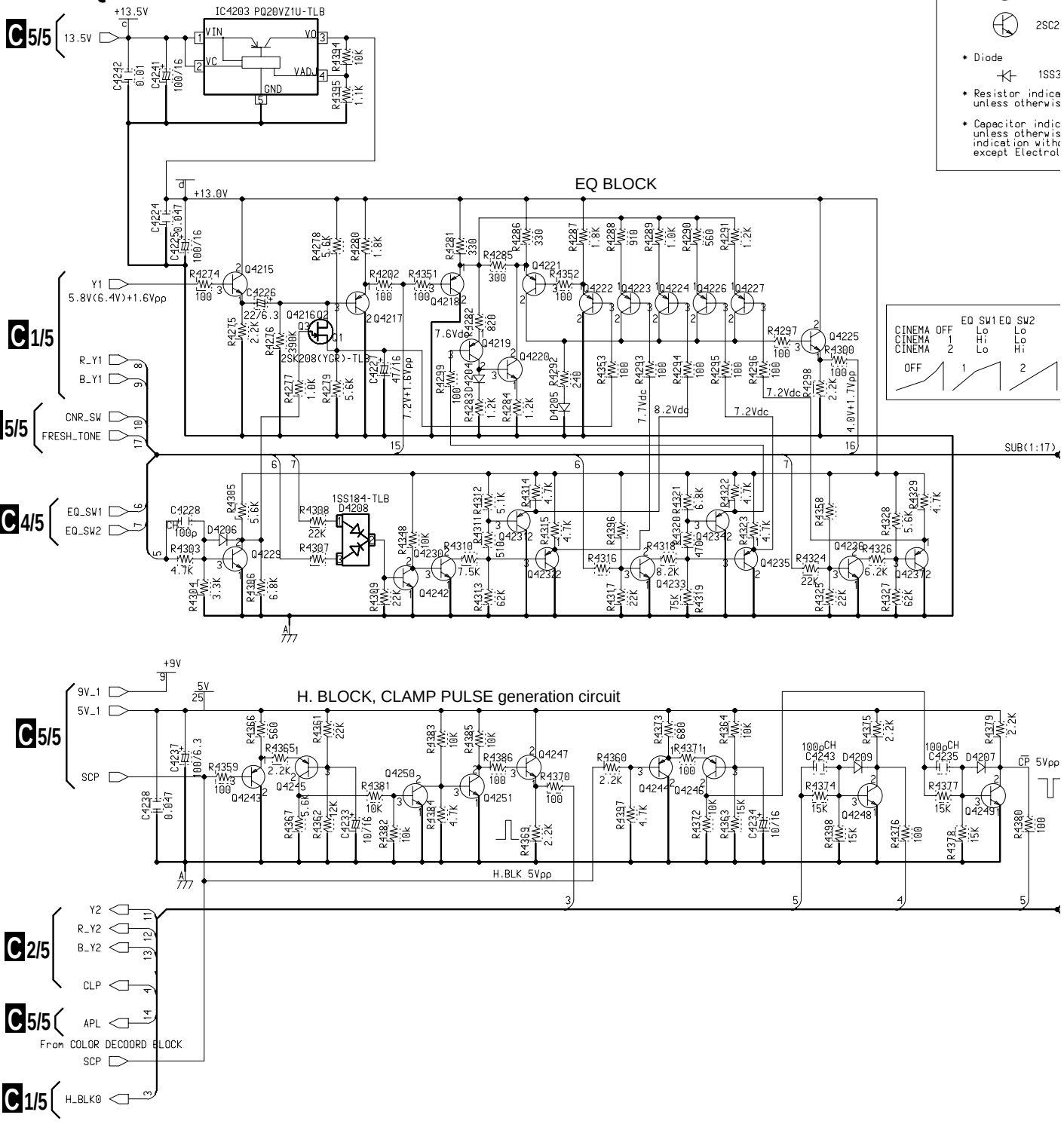
IC4704									
pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)
1	—	11	—	21	—	31	—	41	0.0
2	—	12	0.0	22	—	32	—	42	—
3	—	13	—	23	5.0	33	5.0	43	0.0
4	—	14	—	24	0.0	34	0.0	44	0.0
5	0.0	15	—	25	—	35	—		
6	—	16	—	26	—	36	5.0		
7	—	17	—	27	—	37	—		
8	—	18	—	28	—	38	—		
9	0.0	19	—	29	—	39	—		
10	5.0	20	—	30	—	40	0.0		

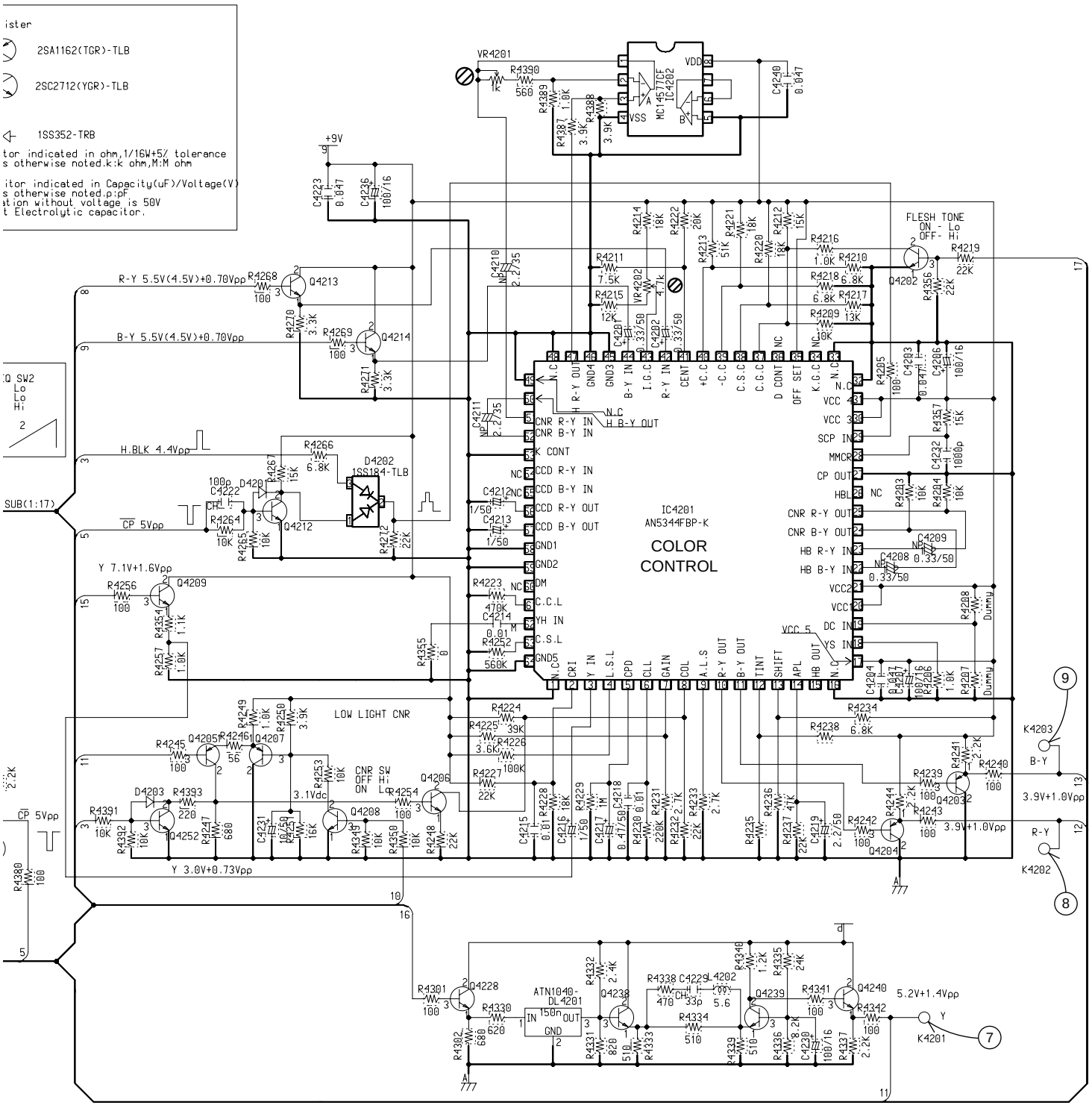
IC4703							
pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)	pin	Vol.(V)
1	—	9	3.2	17	—	25	—
2	2.7	10	0.0	18	0.0	26	—
3	3.2	11	3.3	19	—	27	—
4	1.7	12	3.3	20	—	28	—
5	3.5	13	1.7	21	—	29	—
6	4.9	14	—	22	—	30	—
7	3.2	15	—	23	5.0	31	—
8	3.3	16	—	24	—	32	5.0

3.9 SUB VIDEO ASSY (3/5)

C SUB VIDEO ASSY(3/5) (AWV1718)

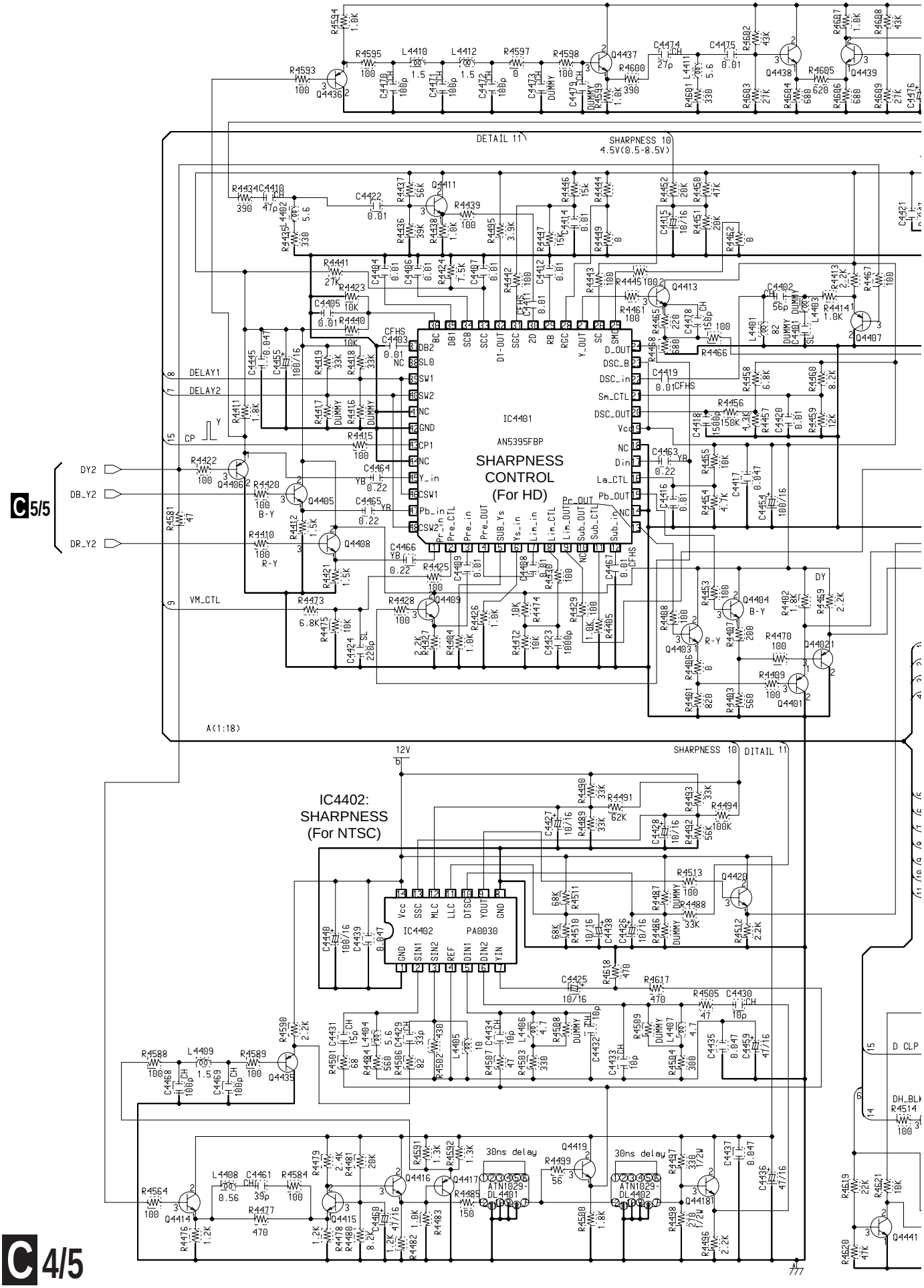
• EQ BLOCK




ister
2SA1162(TGR)-TLB
2SC2712(YGR)-TLB
1SS352-TRB
tor indicated in ohm,1/16W+5% tolerance
s otherwise noted.k:k ohm,M:M ohm
itor indicated in Capacity(uF)/Voltage(V)
s otherwise noted.p:pF
stion without voltage is 50V
t Electrolytic capacitor.
IC4201
AN5344FBP-K
COLOR
CONTROL
VR4201
IC4202
MC14577CF
FLESH TONE
ON - Lo
OFF - Hi
R-Y 5.5V(4.5V)+0.70Vpp
B-Y 5.5V(4.5V)+0.70Vpp
H.BLK 4.4Vpp
CP 5Vpp
Y 7.1V+1.6Vpp
Y 3.0V+0.73Vpp
LOW LIGHT CNR
CNR SW
OFF Hi
ON Lo
3.1Vdc
5.2V+1.4Vpp
3.9V+1.0Vpp
SUB(1:17)
K4201
K4202
K4203
ATN1040-
DL4201

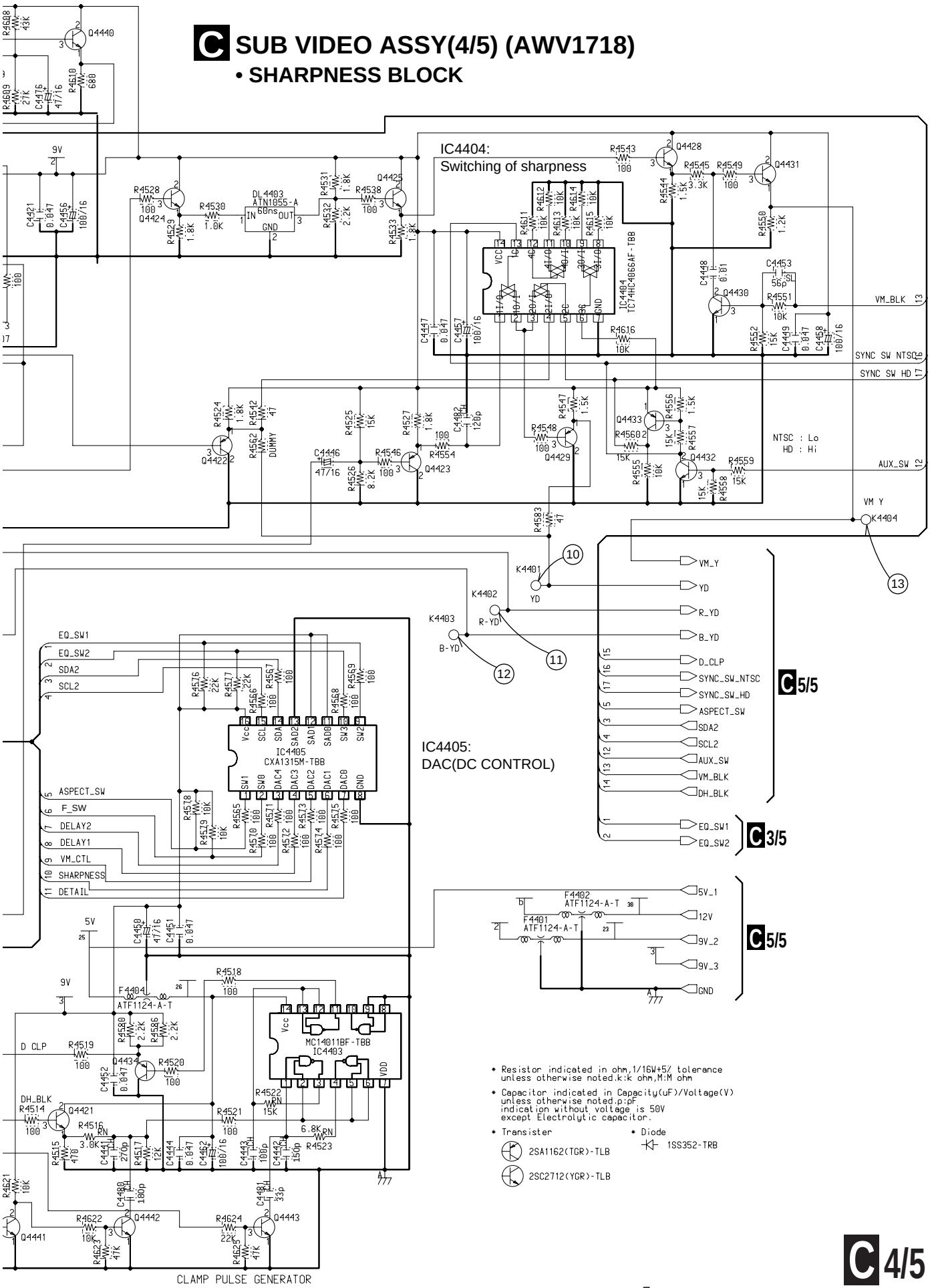
PRO-700HD

3.10 SUB VIDEO ASSY (4/5)

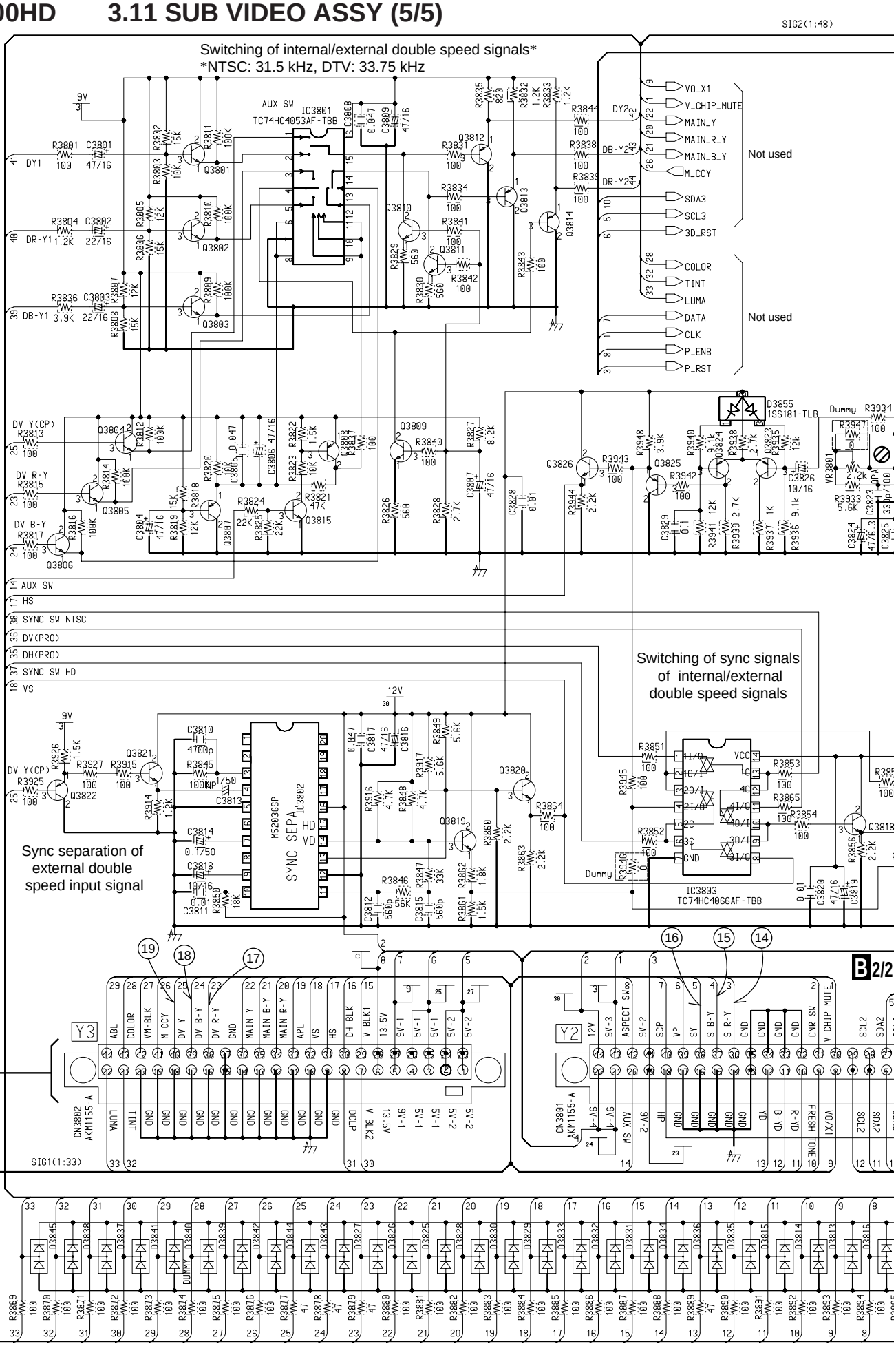


C SUB VIDEO ASSY(4/5) (AWV1718)

• SHARPNESS BLOCK



- Resistor indicated in ohm,1/16W±5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.
- Transister
- Diode

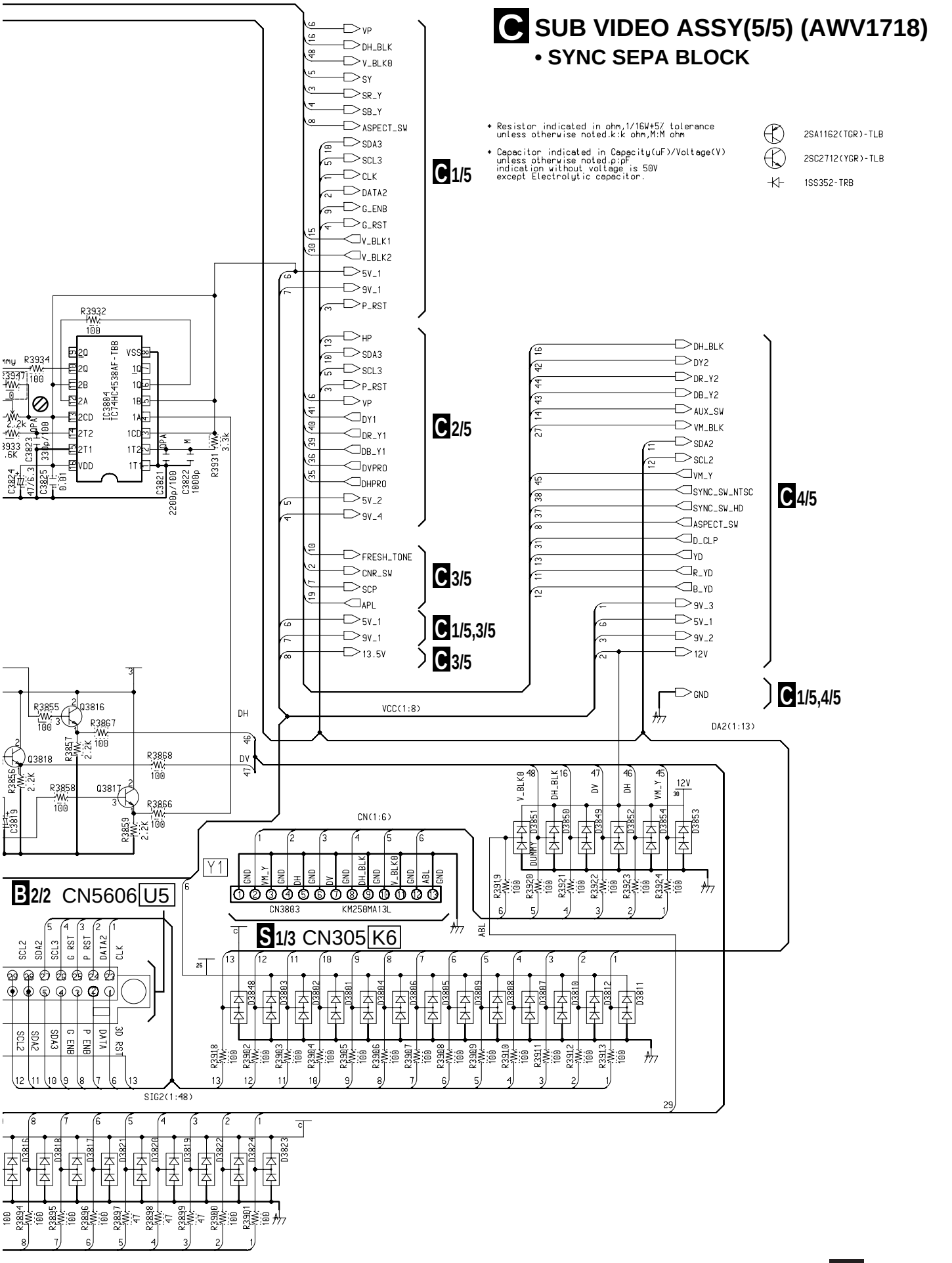

Switching of internal/external double speed signals*
*NTSC: 31.5 kHz, DTV: 33.75 kHz
AUX SW
IC3801
TC74HC4053AF-TBB
VO_X1
V_CHIP_MUTE
MAIN_Y
MAIN_R_Y
MAIN_B_Y
M_CCY
SDA3
SCL3
3D_RST
Not used
COLOR
TINT
LUMA
DATA
CLK
P_ENB
P_RST
Not used
D3855
1SS181-TLB
Dummy
AUX SW
HS
SYNC SW NTSC
DV(PRO)
DH(PRO)
SYNC SW HD
VS
Switching of sync signals
of internal/external
double speed signals
IC3803
TC74HC4066AF-TBB
Sync separation of
external double
speed input signal
SYNC SEP
IC3802
M52036SP
B2/2
CN5609
U6
CN3802
AKM1155-A
CN3801
AKM1155-A
SIG1(1:33)
SIG2(1:48)

C SUB VIDEO ASSY(5/5) (AWV1718)

• SYNC SEPA BLOCK

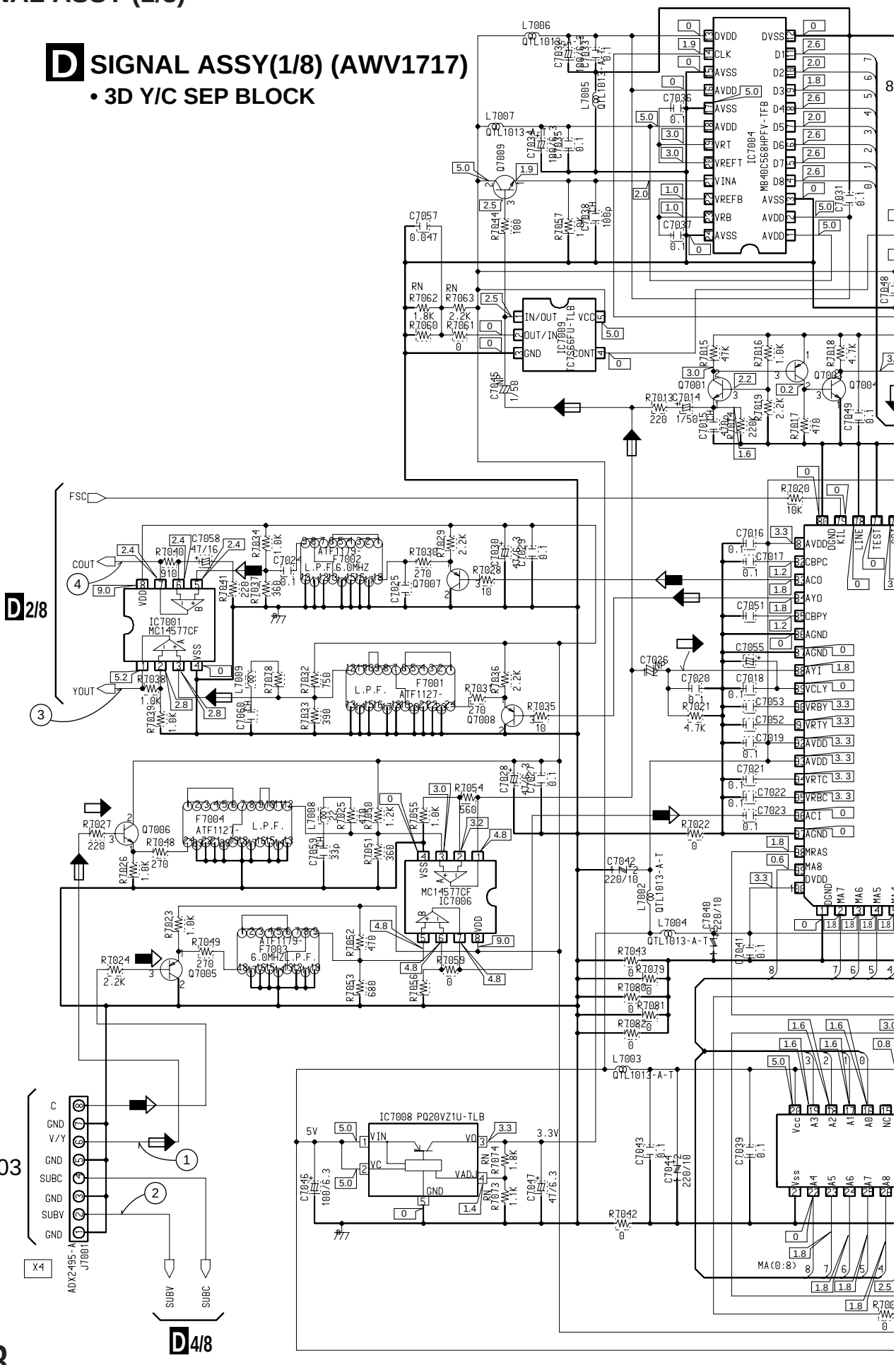
- Resistor indicated in ohm,1/16W±5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.

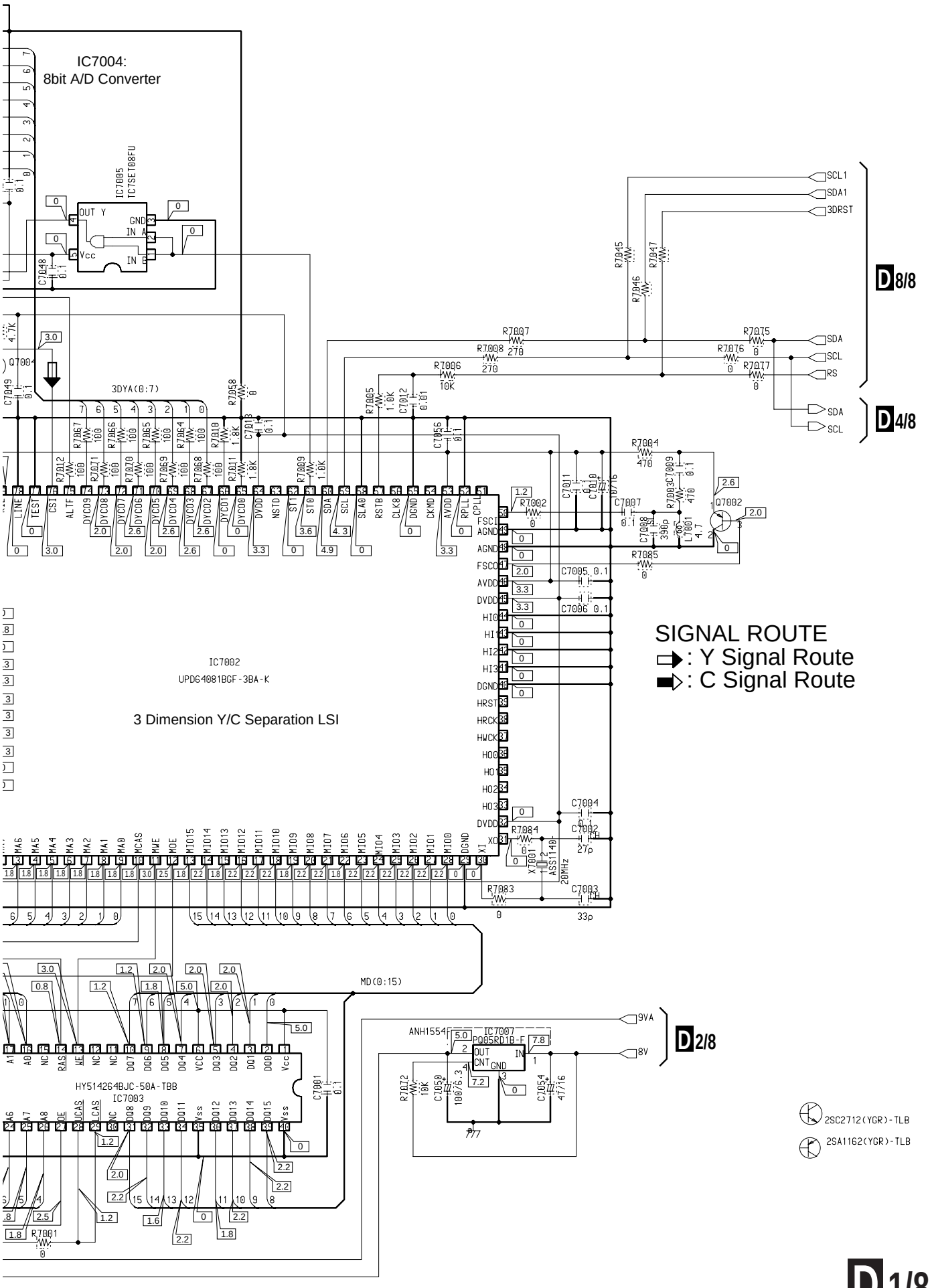
2SA1162(TGR)-TLB
2SC2712(YGR)-TLB
1SS352-TRB



D SIGNAL ASSY(1/8) (AWV1717)

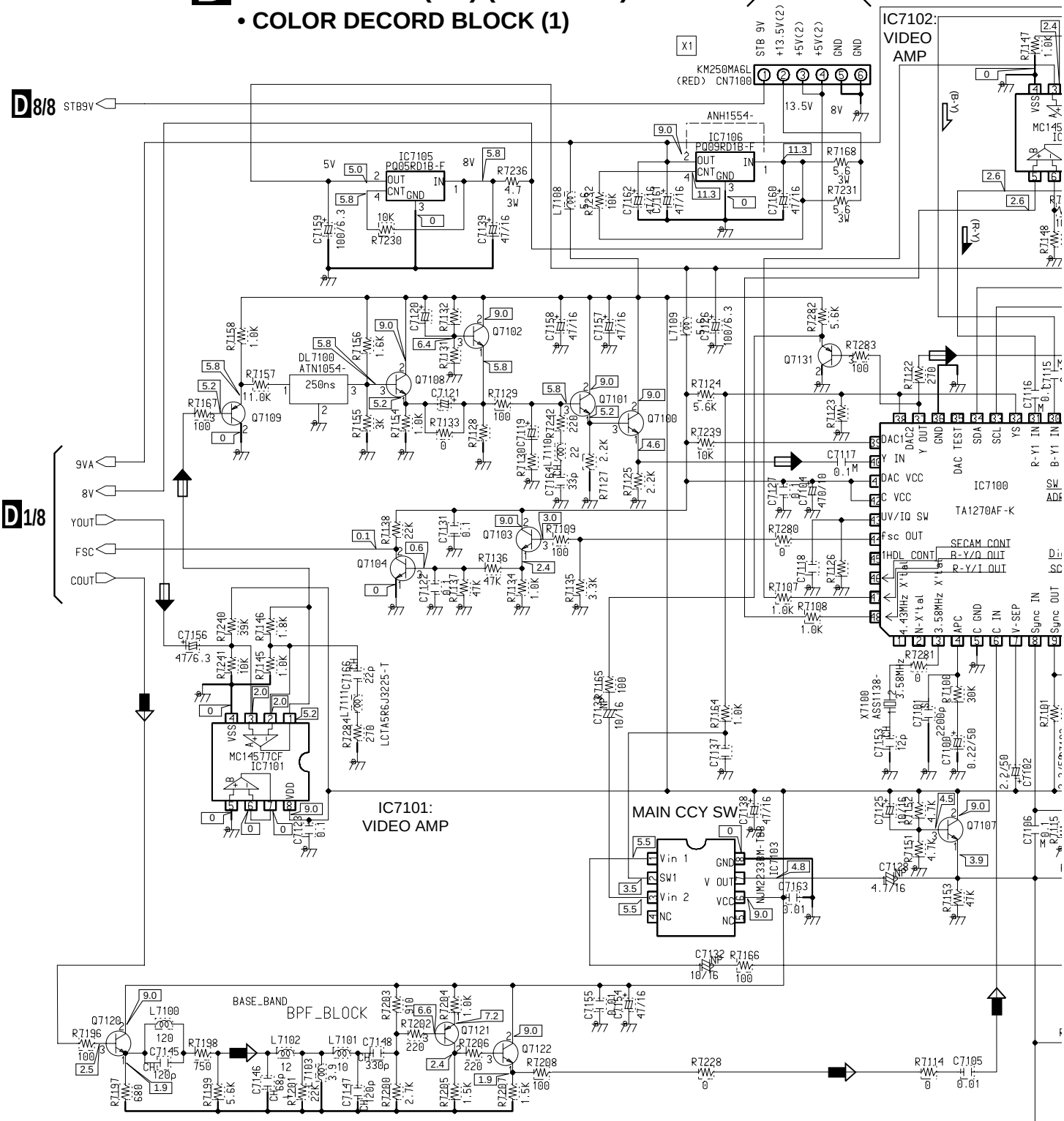
- 3D Y/C SEP BLOCK




IC7004:
8bit A/D Converter
IC7005
TC7SET08FU
OUT Y
GND
IN A
Vcc
IN B
3DYA(0:7)
SCL1
SDA1
3DRST
SDA
SCL
RS
D8/8
D4/8
IC7002
UPD64081BGF-3BA-K
3 Dimension Y/C Separation LSI
SIGNAL ROUTE
: Y Signal Route
: C Signal Route
MD(0:15)
IC7007
PQ05RD1B-F
ANH1554
9VA
8V
D2/8
IC7003
HY514264BJC-50A-TBB
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB

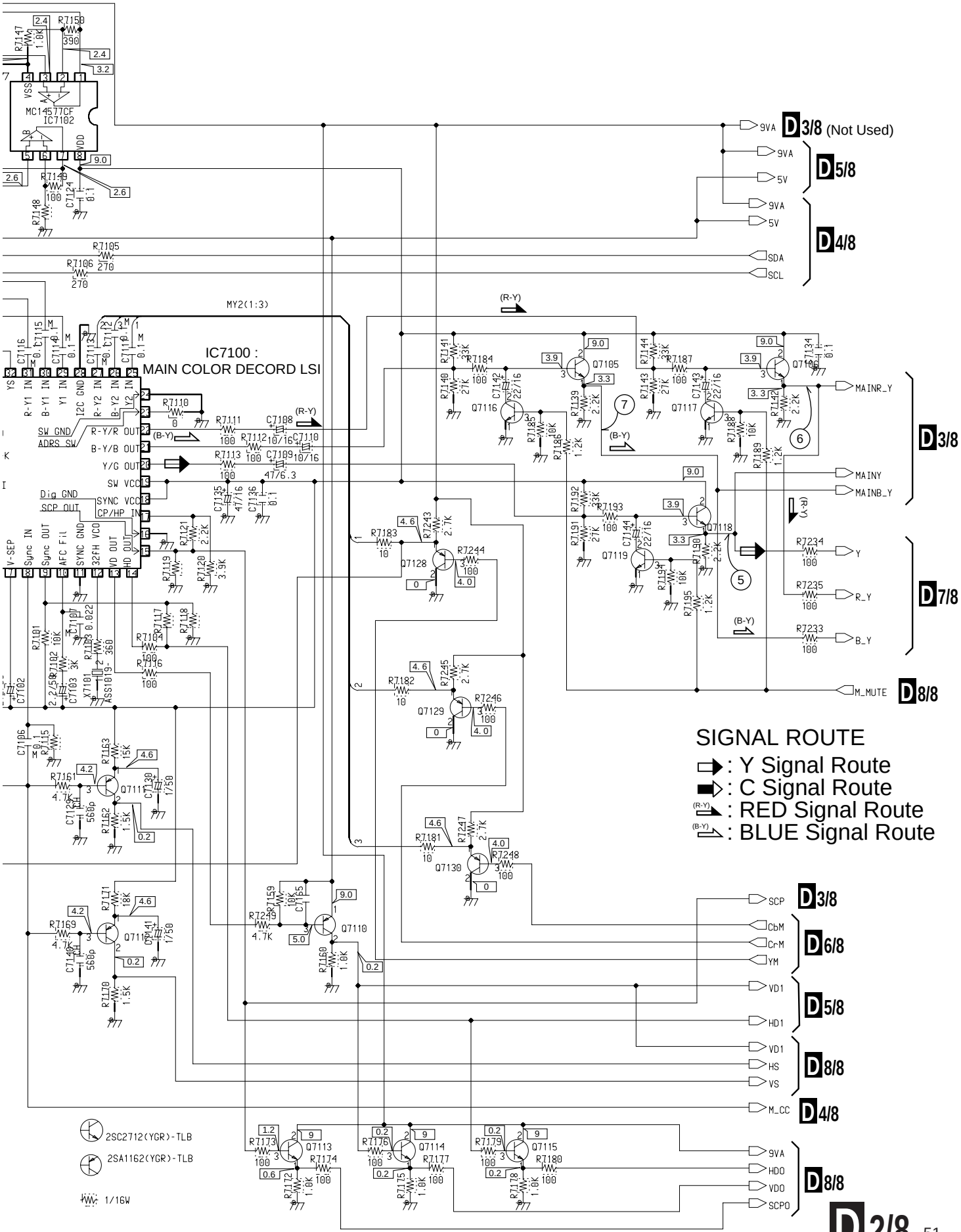
D SIGNAL ASSY(2/8) (AWV1717)

• COLOR DECORD BLOCK (1)



IC7100 (TA1270AF-K)

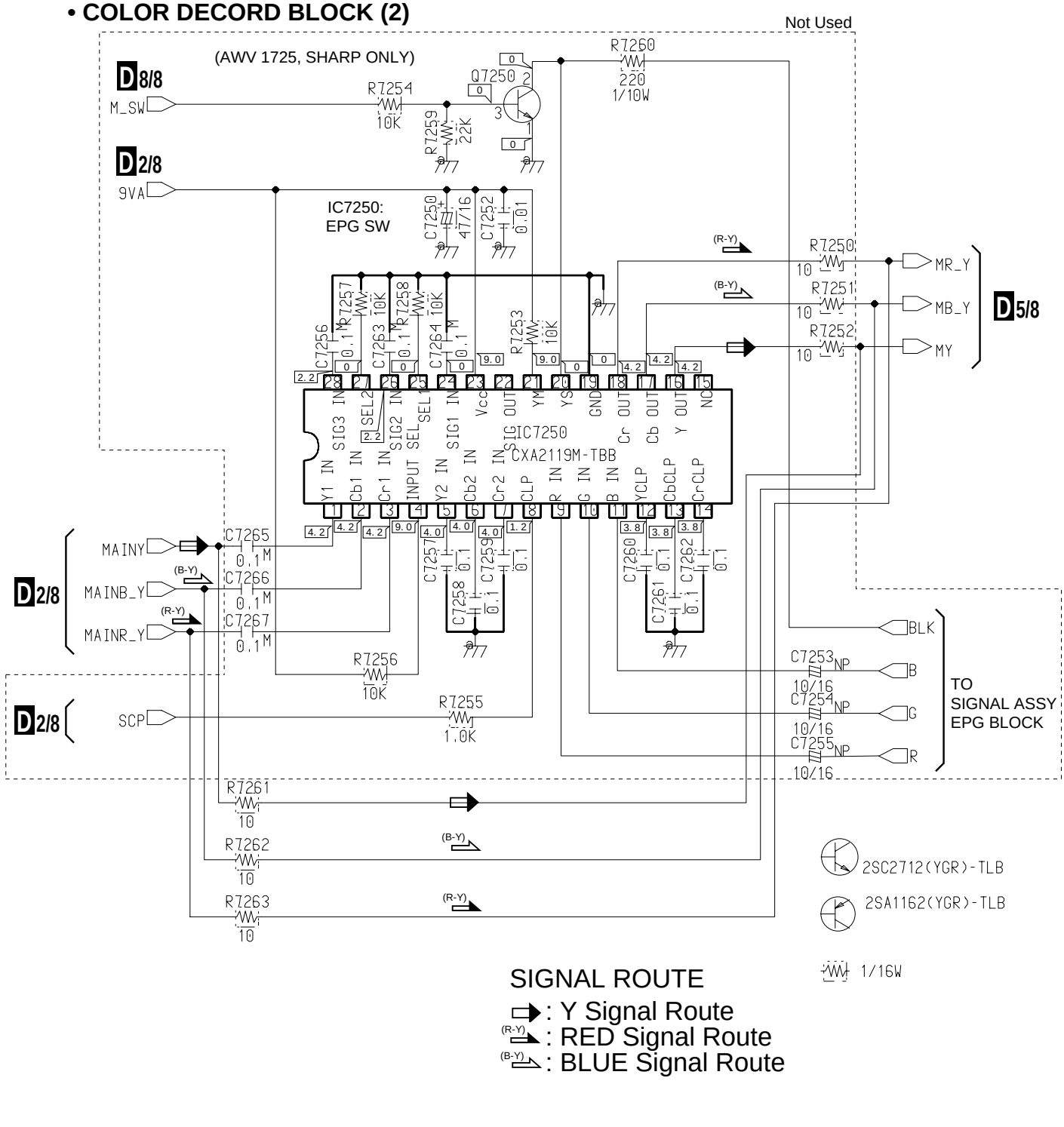
Pin	Voltege(V)	Pin	Voltege(V)	Pin	Voltege(V)	Pin	Voltege(V)	Pin	Voltege(V)	Pin	Voltege(V)
1	4.0	9	8.0	17	0.8	25	2.0	33	3.5	41	5.0
2	4.0	10	7.2	18	8.9	26	2.0	34	3.5	42	5.0
3	4.0	11	0	19	8.9	27	2.0	35	-	43	0.8
4	2.2	12	5.5	20	4.5	28	0	36	0	44	3.0
5	0	13	5.0	21	4.5	29	2.0	37	2.4	45	-
6	-	14	0.2	22	4.5	30	2.0	38	3.6	46	-
7	3.0	15	1.2	23	0	31	2.0	39	0	47	2.8
8	2.6	16	0	24	0	32	3.5	40	2.0	48	2.6


IC7100 :
MAIN COLOR DECORD LSI
MC14577CF
IC7102
MY2(1:3)
9VA
5V
SDA
SCL
MAINR_Y
MAINY
MAINB_Y
Y
R_Y
B_Y
M_MUTE
SCP
CbM
CrM
YM
VD1
HD1
HS
VS
M_CC
HDO
VDO
SCPO
D 3/8 (Not Used)
D 5/8
D 4/8
D 3/8
D 7/8
D 8/8
D 6/8
D 5/8
D 8/8
D 4/8
D 8/8
SIGNAL ROUTE
: Y Signal Route
: C Signal Route
: RED Signal Route
: BLUE Signal Route
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1/16W

3.14 SIGNAL ASSY (3/8)

D SIGNAL ASSY(3/8) (AWV1717)

• COLOR DECORD BLOCK (2)



SIGNAL ROUTE

: Y Signal Route

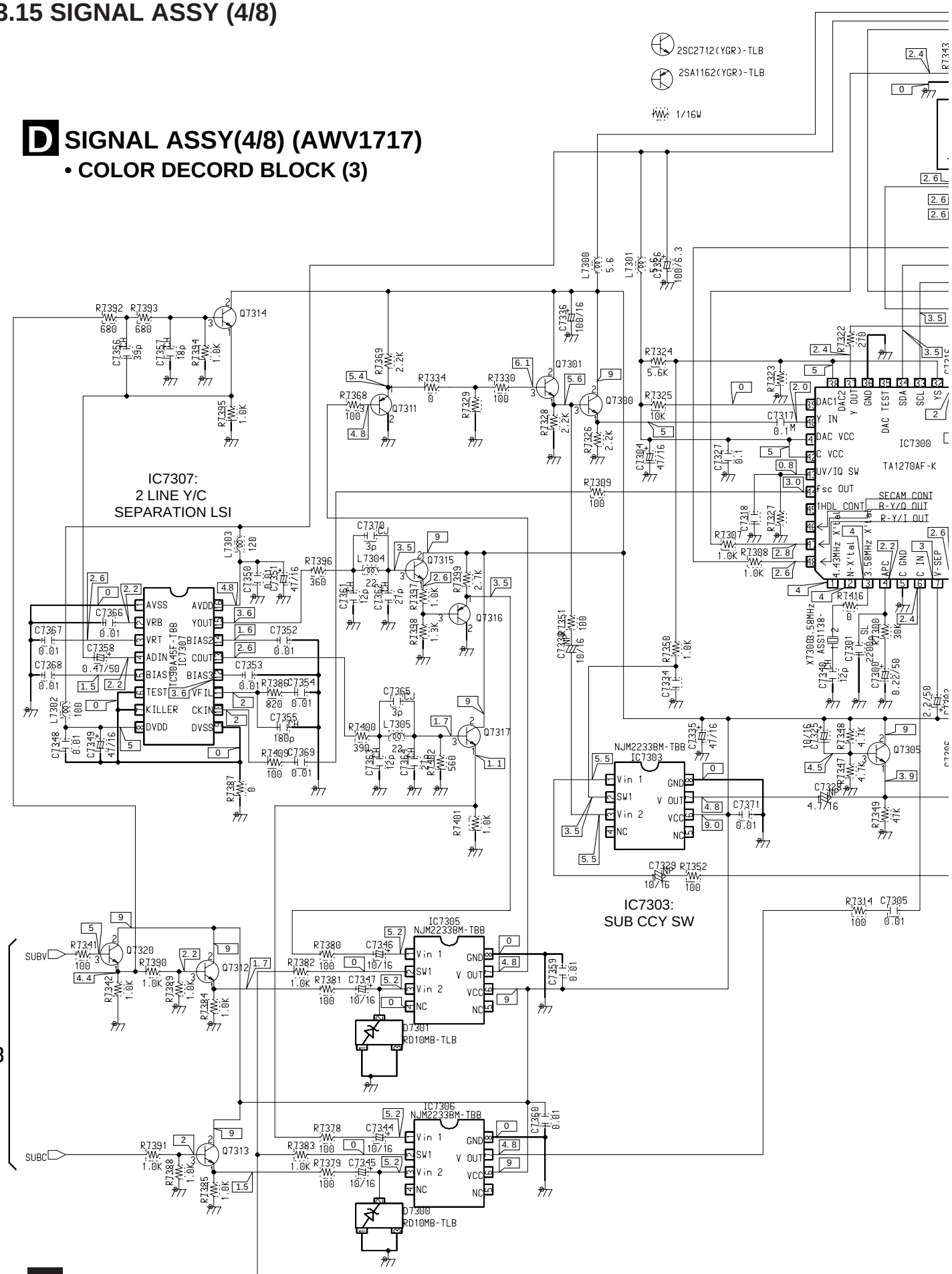
(R-Y) : RED Signal Route

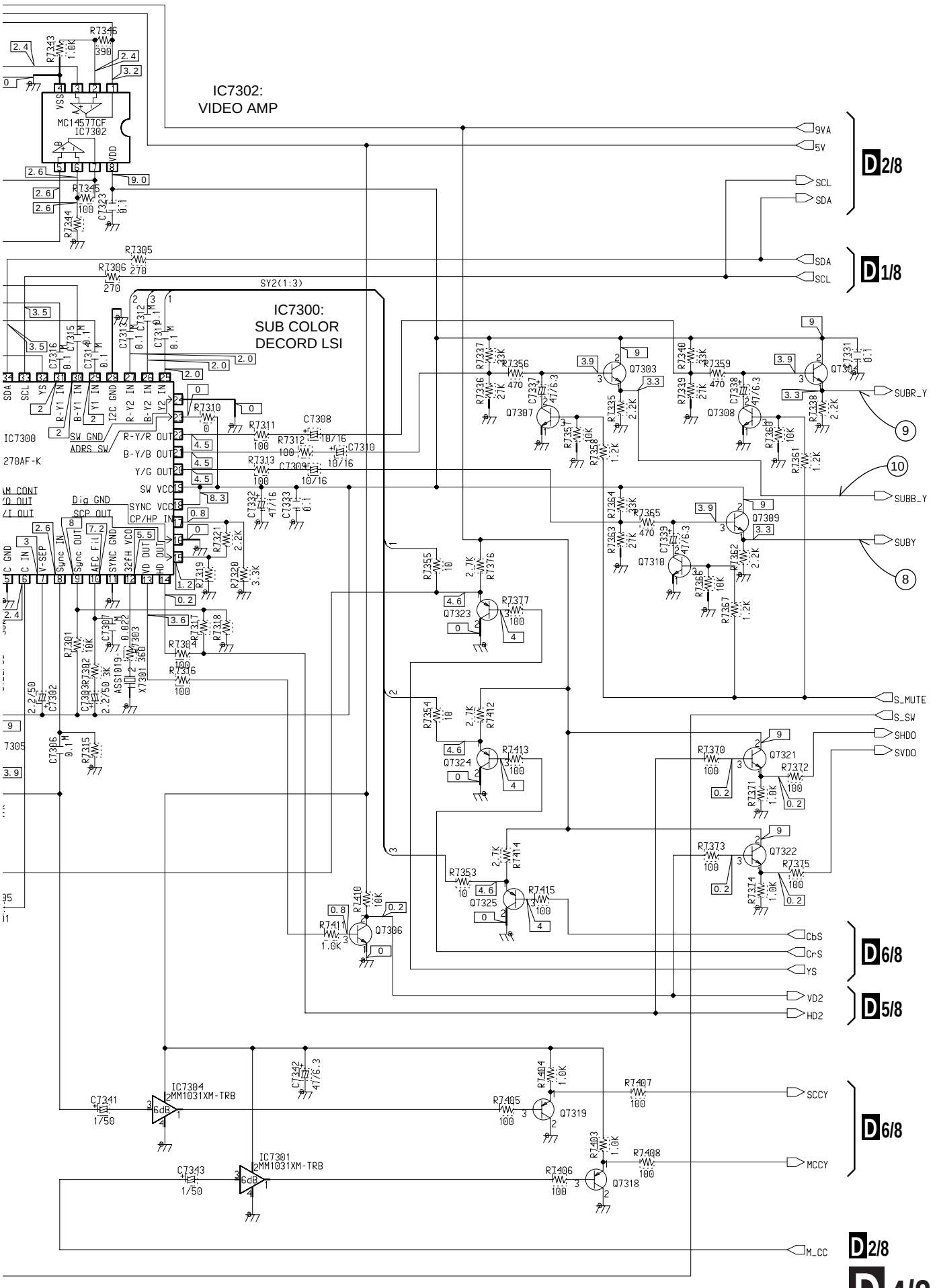
(B-Y) : BLUE Signal Route

3.15 SIGNAL ASSY (4/8)

D SIGNAL ASSY(4/8) (AWV1717)

- **COLOR DECORD BLOCK (3)**

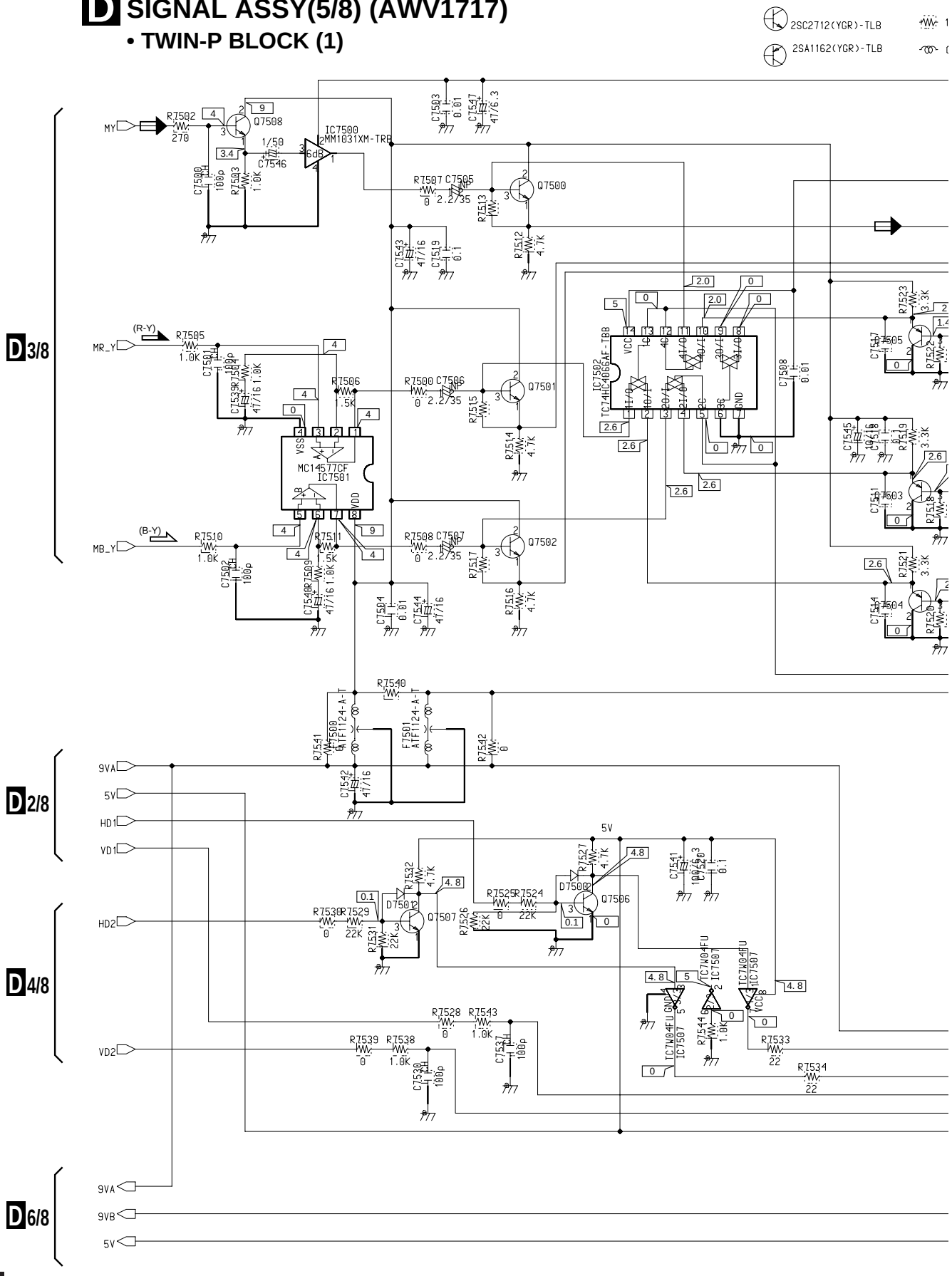


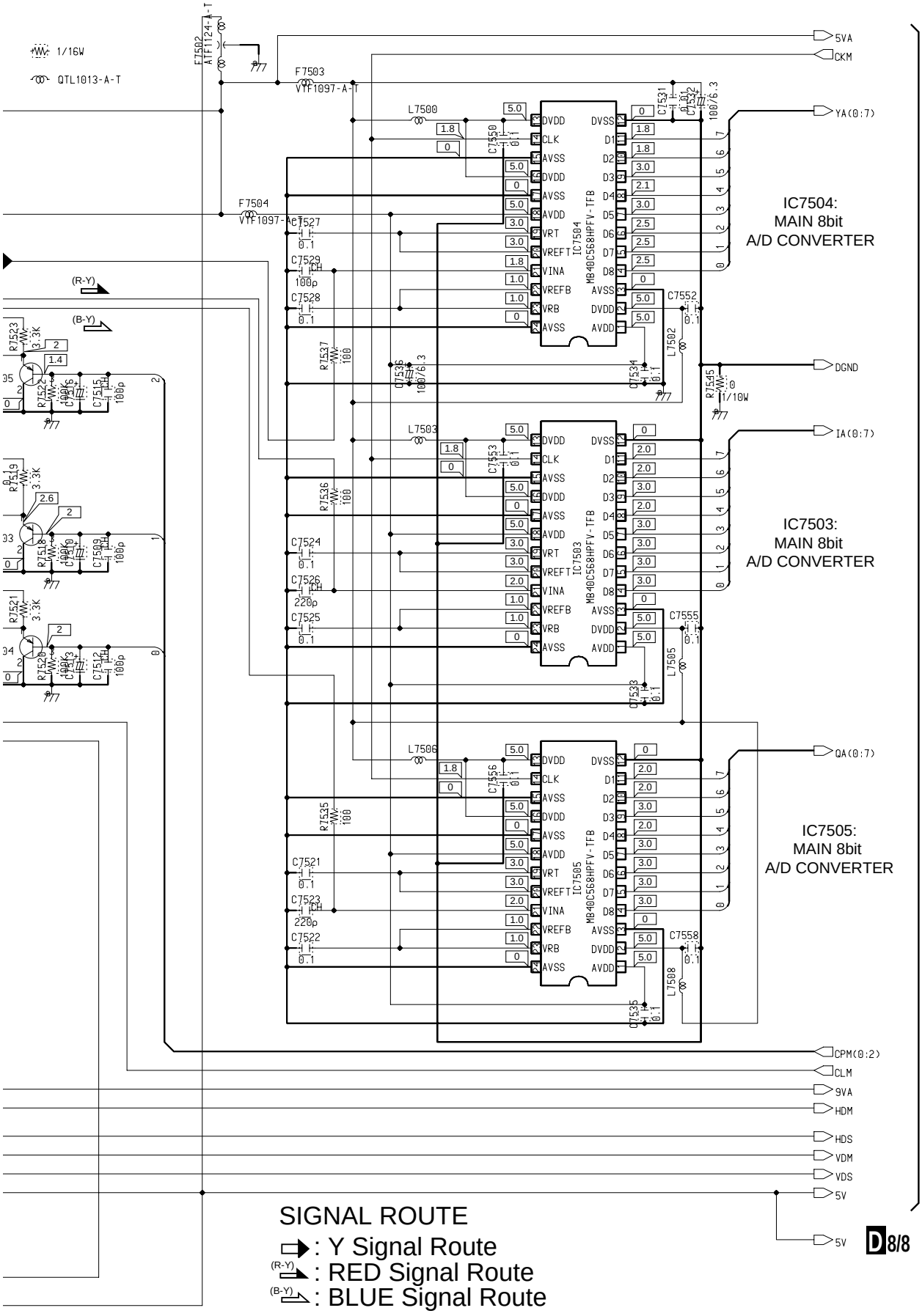

IC7302:
VIDEO AMP
MC14577CF
IC7302
IC7300:
SUB COLOR
DECORD LSI
IC7300
270AF-K
SY2(1:3)
9VA
5V
SCL
SDA
SUBR_Y
SUBB_Y
SUBY
S_MUTE
S_SW
SHDO
SVDO
CbS
CrS
YS
VD2
HD2
SCCY
MCCY
M_CC
IC7304
MM1031XM-TRB
IC7301
MM1031XM-TRB
D2/8
D1/8
D6/8
D8/8
D5/8
D4/8

3.16 SIGNAL ASSY (5/8)

D SIGNAL ASSY(5/8) (AWV1717)

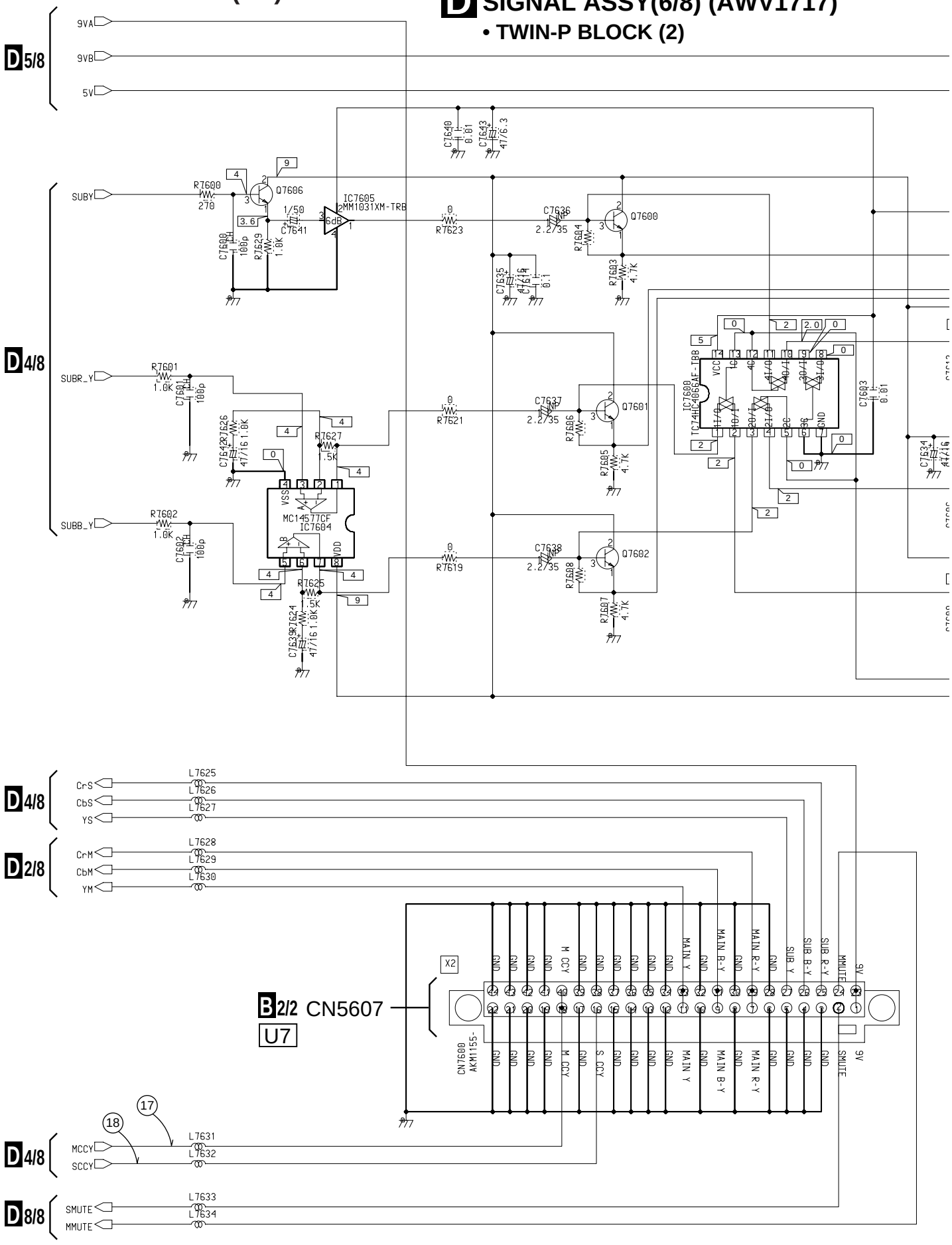
• TWIN-P BLOCK (1)

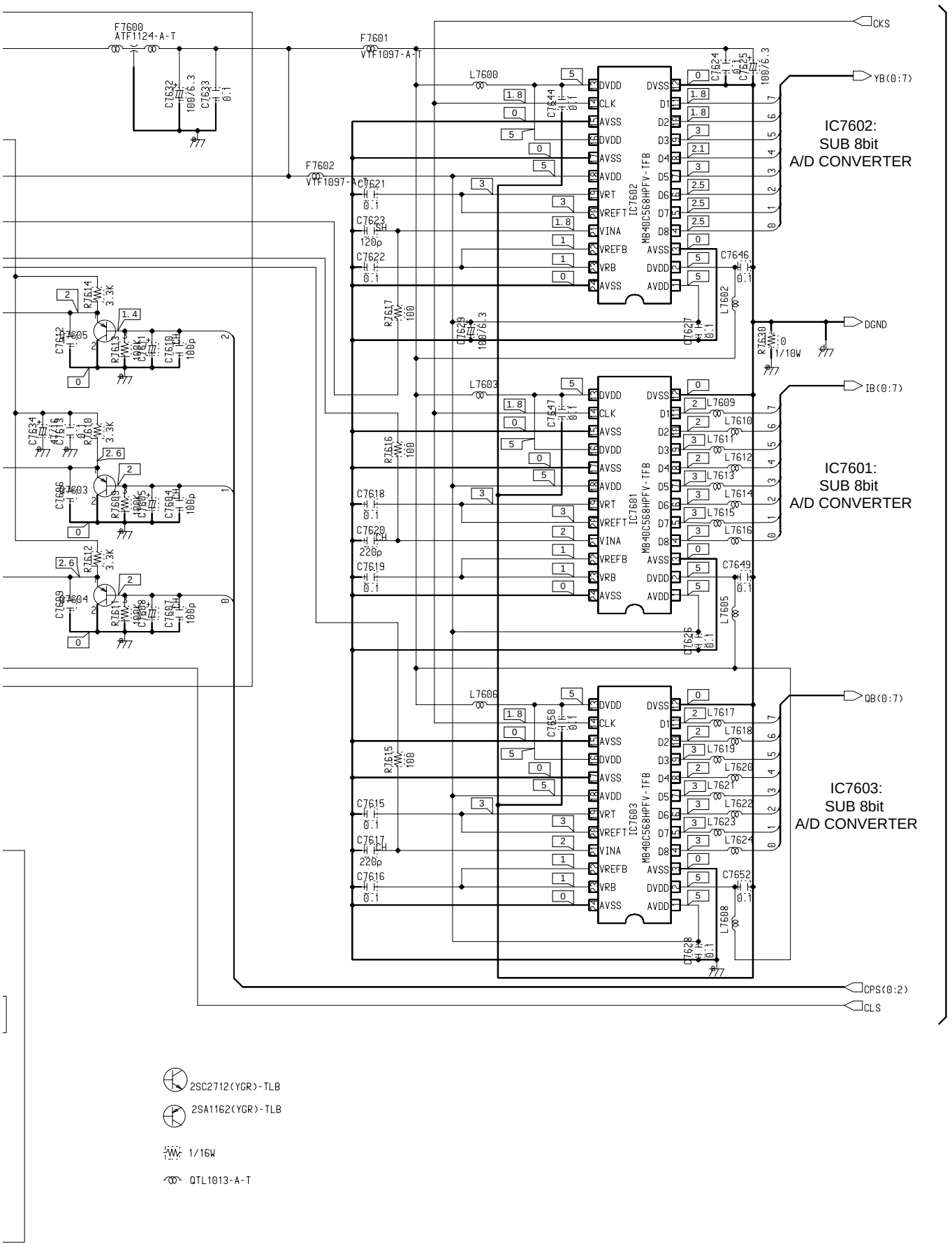



IC7504:
MAIN 8bit
A/D CONVERTER
IC7503:
MAIN 8bit
A/D CONVERTER
IC7505:
MAIN 8bit
A/D CONVERTER
IC7504
IC7503
IC7505
MB40C568HPFV-TFB
5VA
CKM
YA(0:7)
DGND
IA(0:7)
QA(0:7)
CPM(0:2)
CLM
9VA
HDM
HDS
VDM
VDS
5V
D7/8
D8/8
SIGNAL ROUTE
: Y Signal Route
(R-Y) : RED Signal Route
(B-Y) : BLUE Signal Route

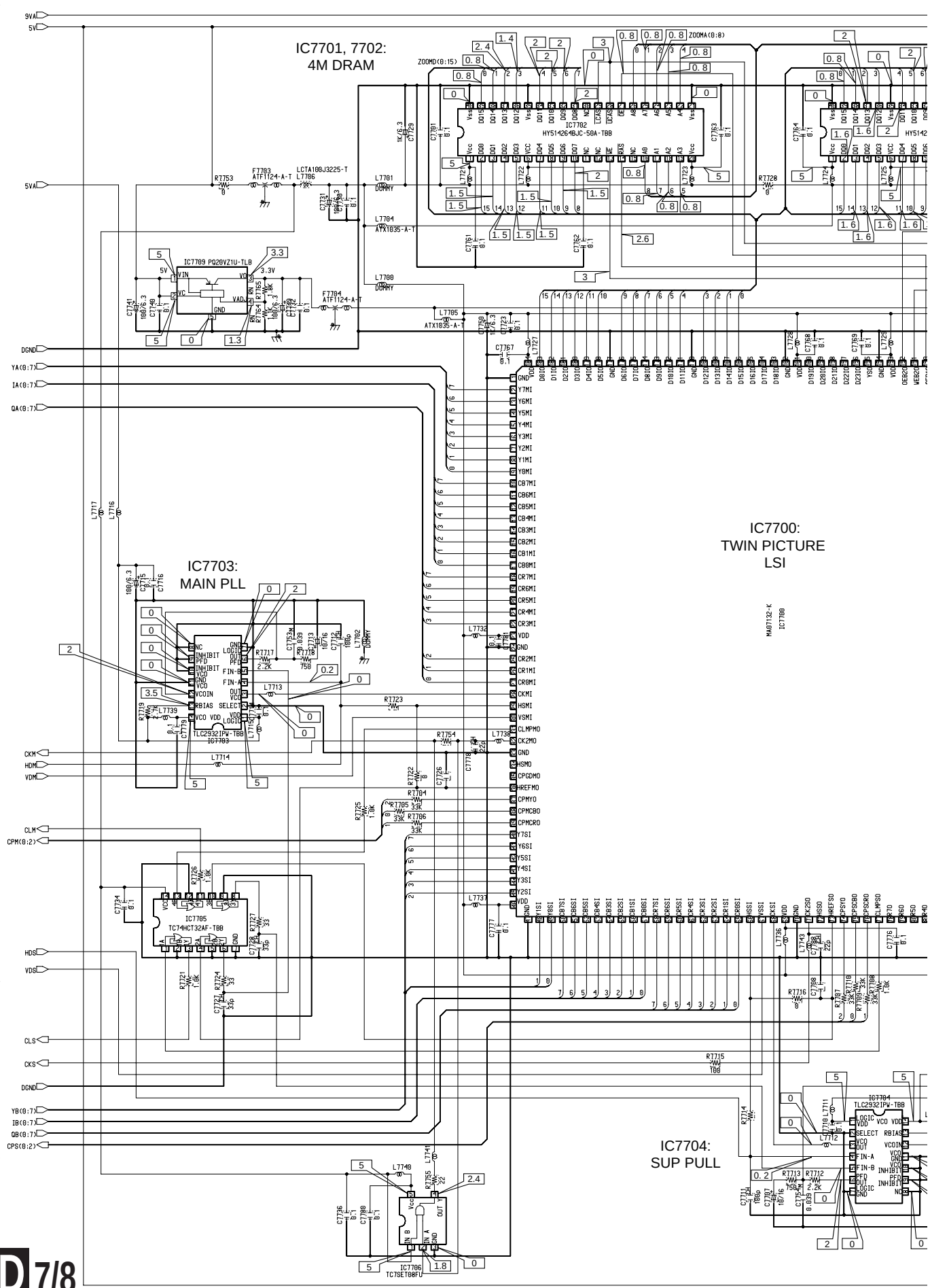
D SIGNAL ASSY(6/8) (AWV1717)

- TWIN-P BLOCK (2)



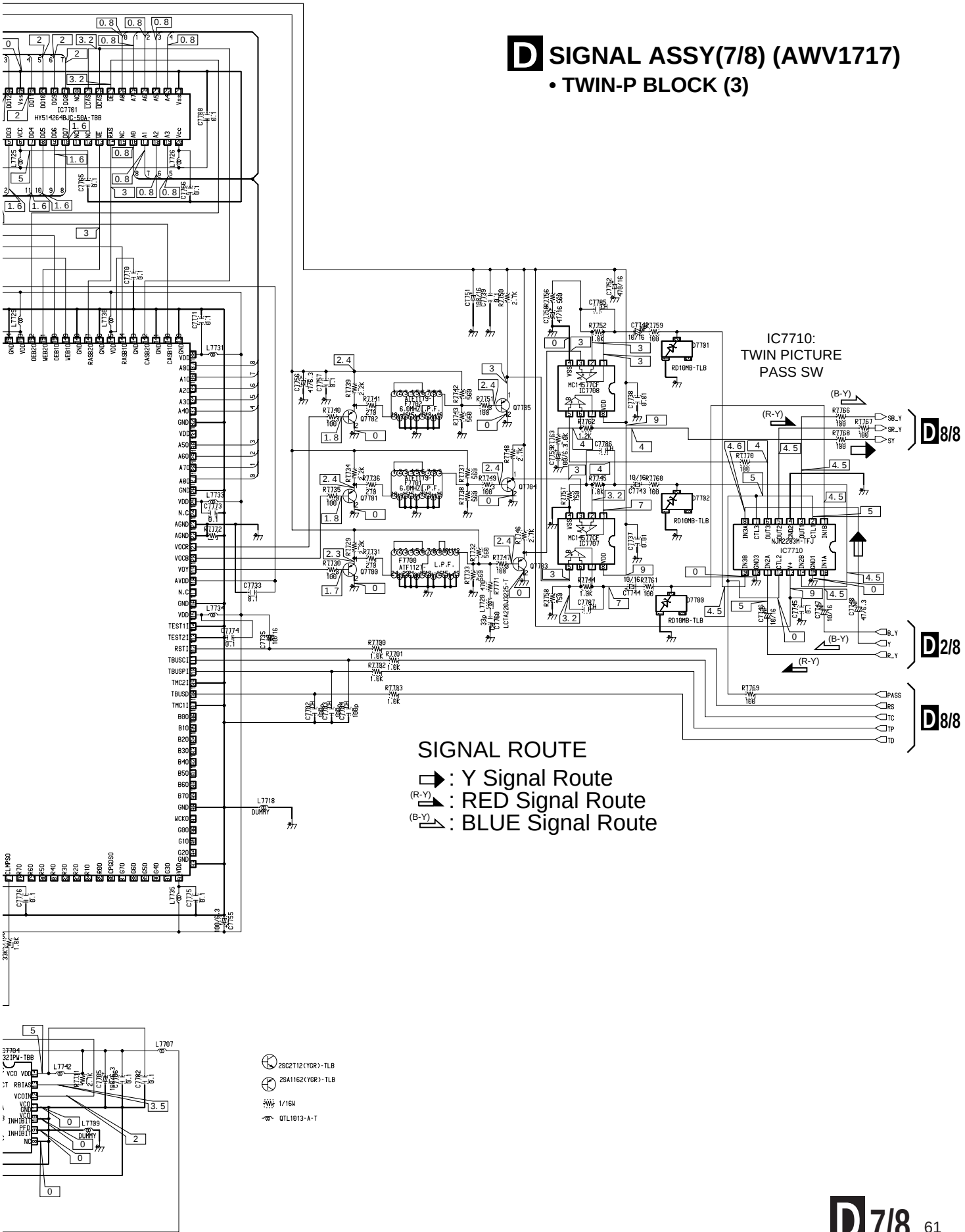

F7600
ATF1124-A-T
F7601
VTF1097-A-T
F7602
VTF1097-A-T
CKS
YB(0:7)
IB(0:7)
QB(0:7)
DGND
CPS(0:2)
CLS
IC7602:
SUB 8bit
A/D CONVERTER
IC7601:
SUB 8bit
A/D CONVERTER
IC7603:
SUB 8bit
A/D CONVERTER
MB40C568HPFV-TFB
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1/16W
QTL1013-A-T

3.18 SIGNAL ASSY (7/8)

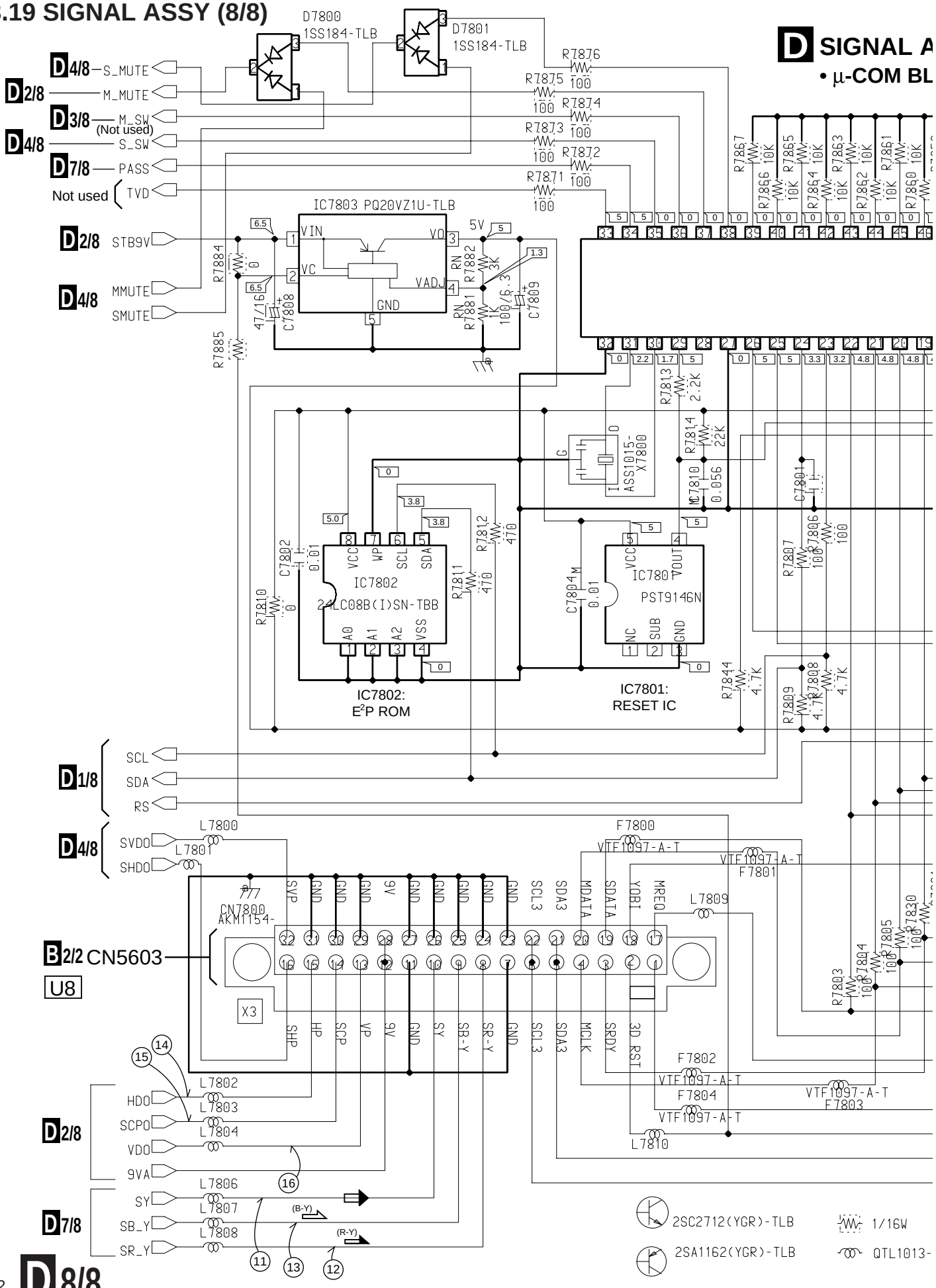


D SIGNAL ASSY(7/8) (AWV1717)

- **TWIN-P BLOCK (3)**

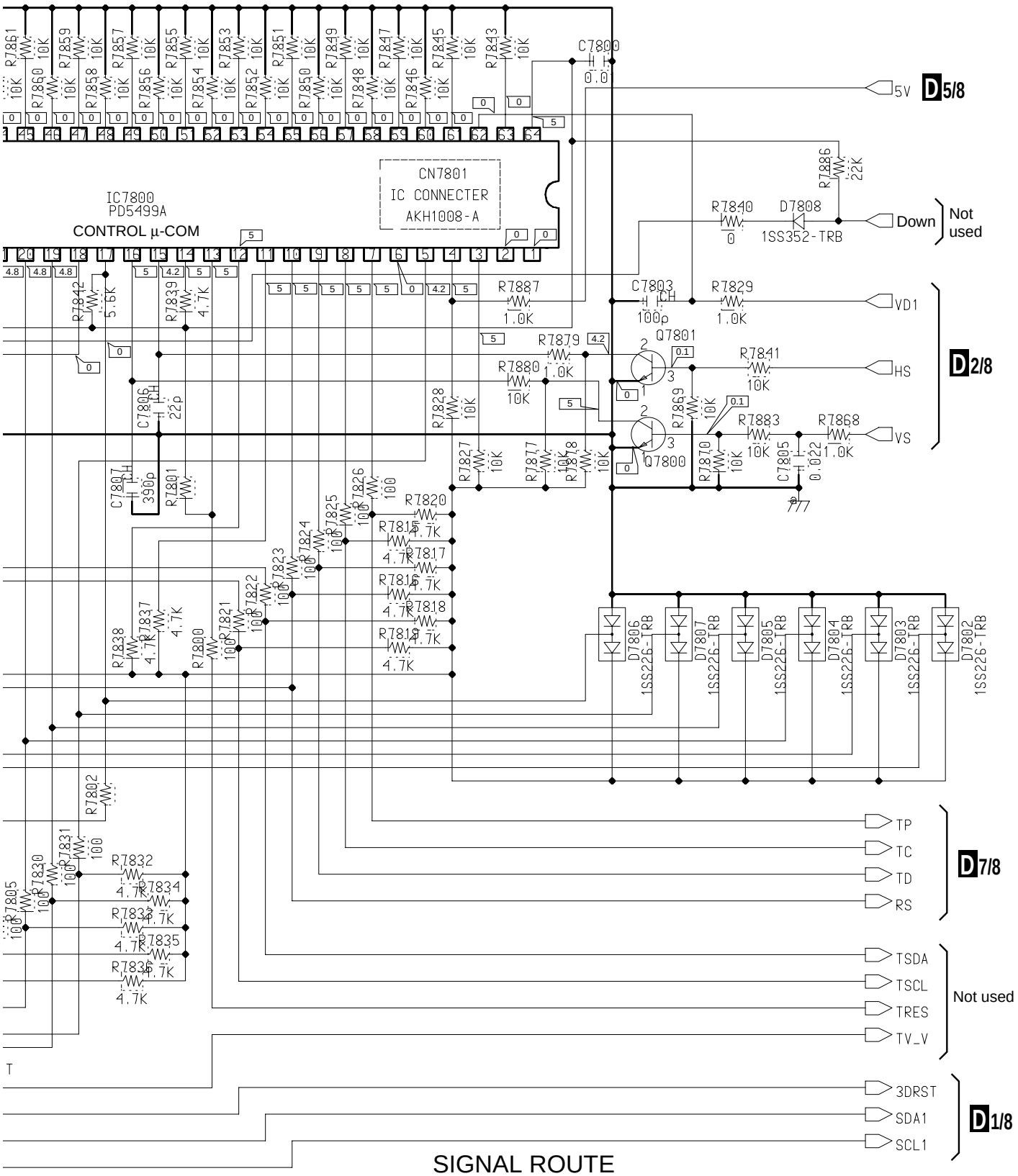


3.19 SIGNAL ASSY (8/8)



AL ASSY(8/8) (AWV1717)

ɔM BLOCK



SIGNAL ROUTE

: Y Signal Route

(R-Y) : RED Signal Route

(B-Y) : BLUE Signal Route

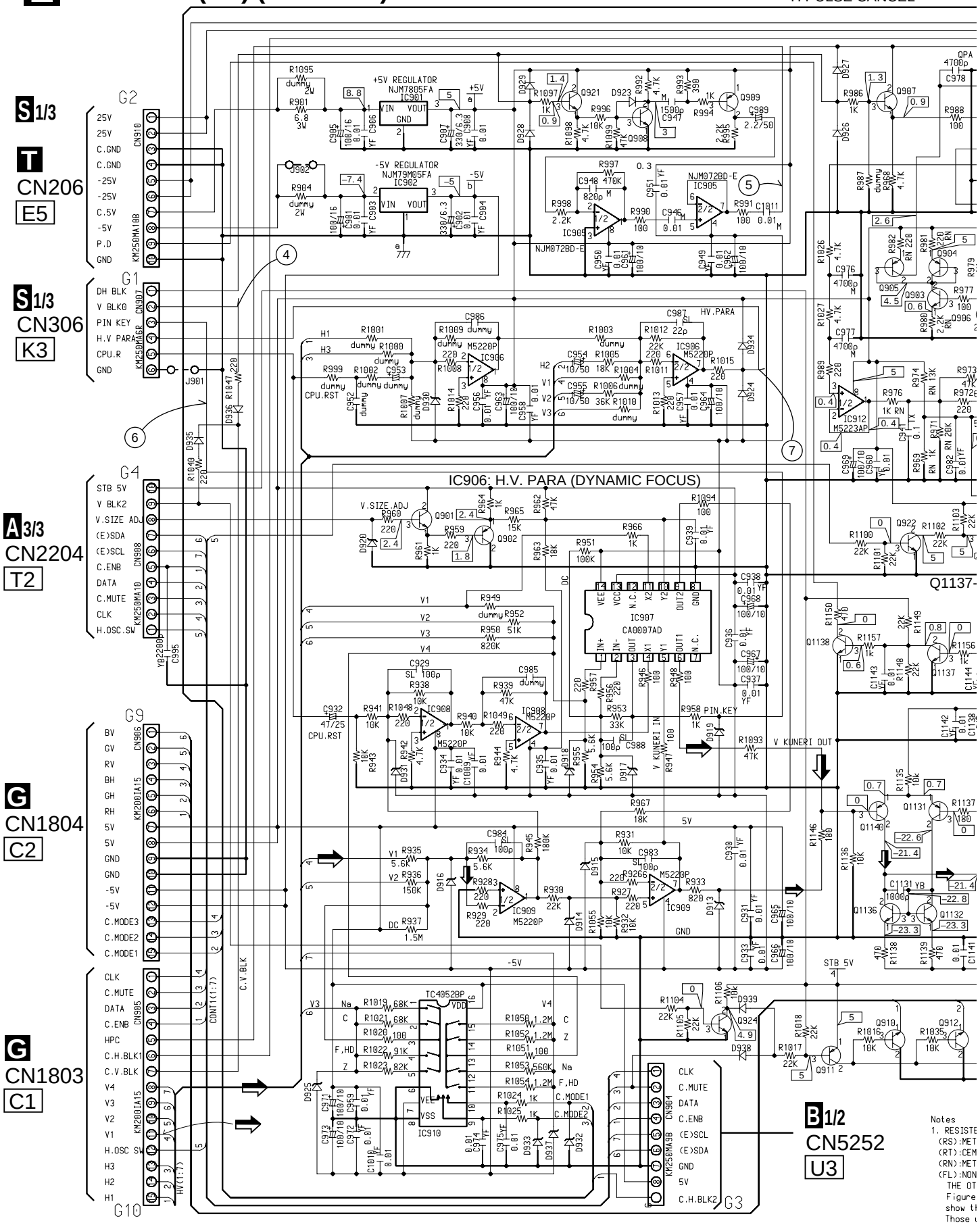
/16W

ITL1013-A-T

PRO-700HD
3.20 AMP ASSY (1/3)

E AMP ASSY(1/3) (AWV1712) • CONVERGENCE/V.DEF BLOCK

IC905, Q908, Q909, Q921:
H PULSE CANCEL



IC911, IC912, Q904-Q907, Q922:
CONVERGENCE H. BLOCK

Note: As for voltages of IC903-IC913 refer to page 69.

IC913:
VIDEO
MUTE (H)

Q1137-Q1139: V. DEF STOP

Q910-Q916, Q924:
CONVERGENCE MUTE

DEFLECTION
YORK (H, V)
L3 (B)

DEFLECTION
YORK (H, V)
L2 (G)

DEFLECTION
YORK (H, V)
L1 (R)

SIGNAL ROUTE
➡: VD Signal Route

Notes
1. RESISTERS
(RS):METAL OXIDE FILM RESISTER
(RT):CEMENT RESISTER
(RN):METAL FILM RESISTER
(FL):NON FLAMMABLE RESISTER
THE OTHERS:CARBONFILM RESISTER (1/4 W)
Figures in pharentheses
show the rated wattage.
Those unspecified ones are of 1/4W.
K:KΩ ,M:MΩ ,Unspecified ones are of Ω

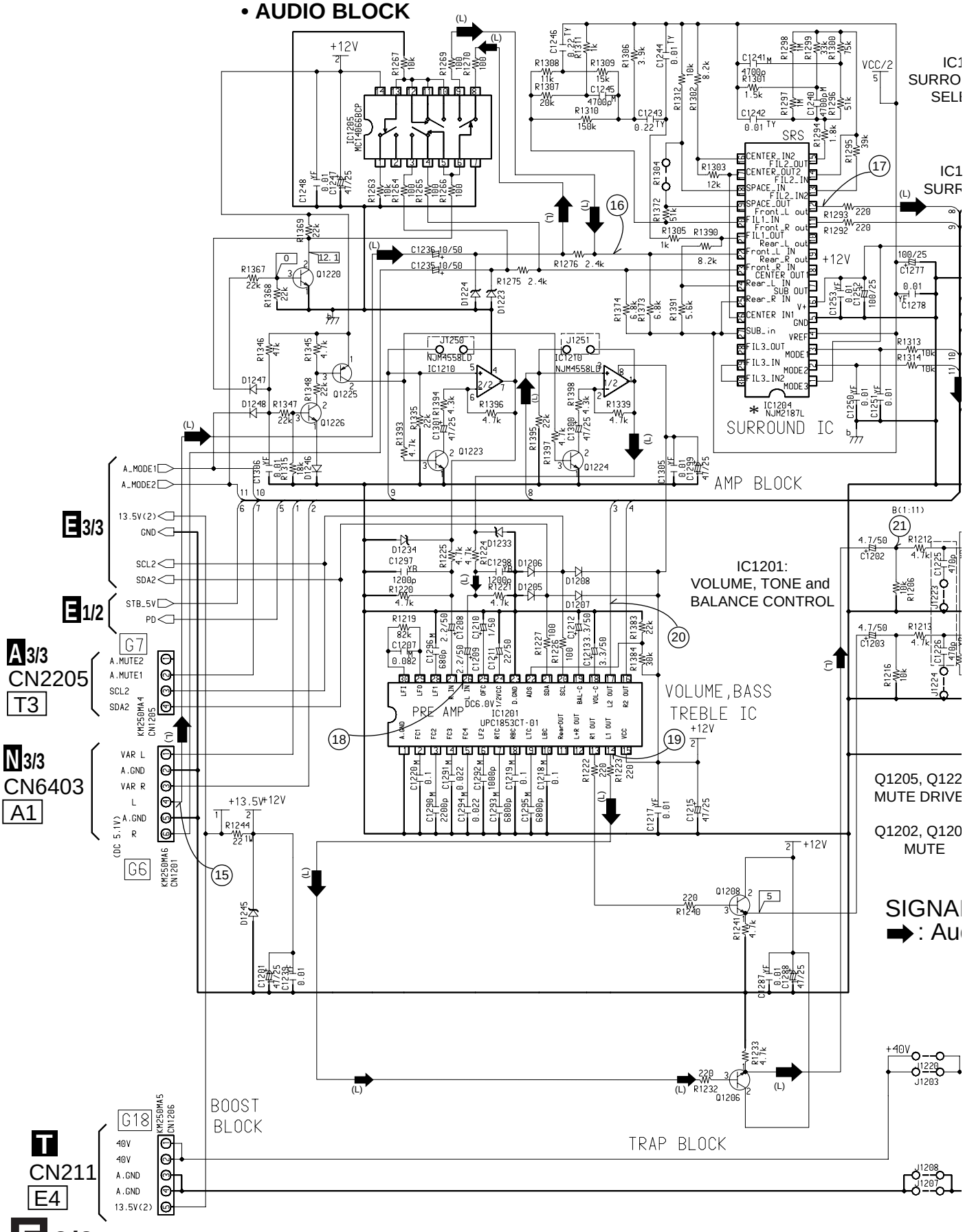
2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V

: 2SA933S(RS) : 2SC1740S(RS)
: 1SS254 : RD12ESB

3.21 AMP ASSY (2/3)

E AMP ASSY(2/3) (AWV1712)

• AUDIO BLOCK



* TruSurround with SRS *

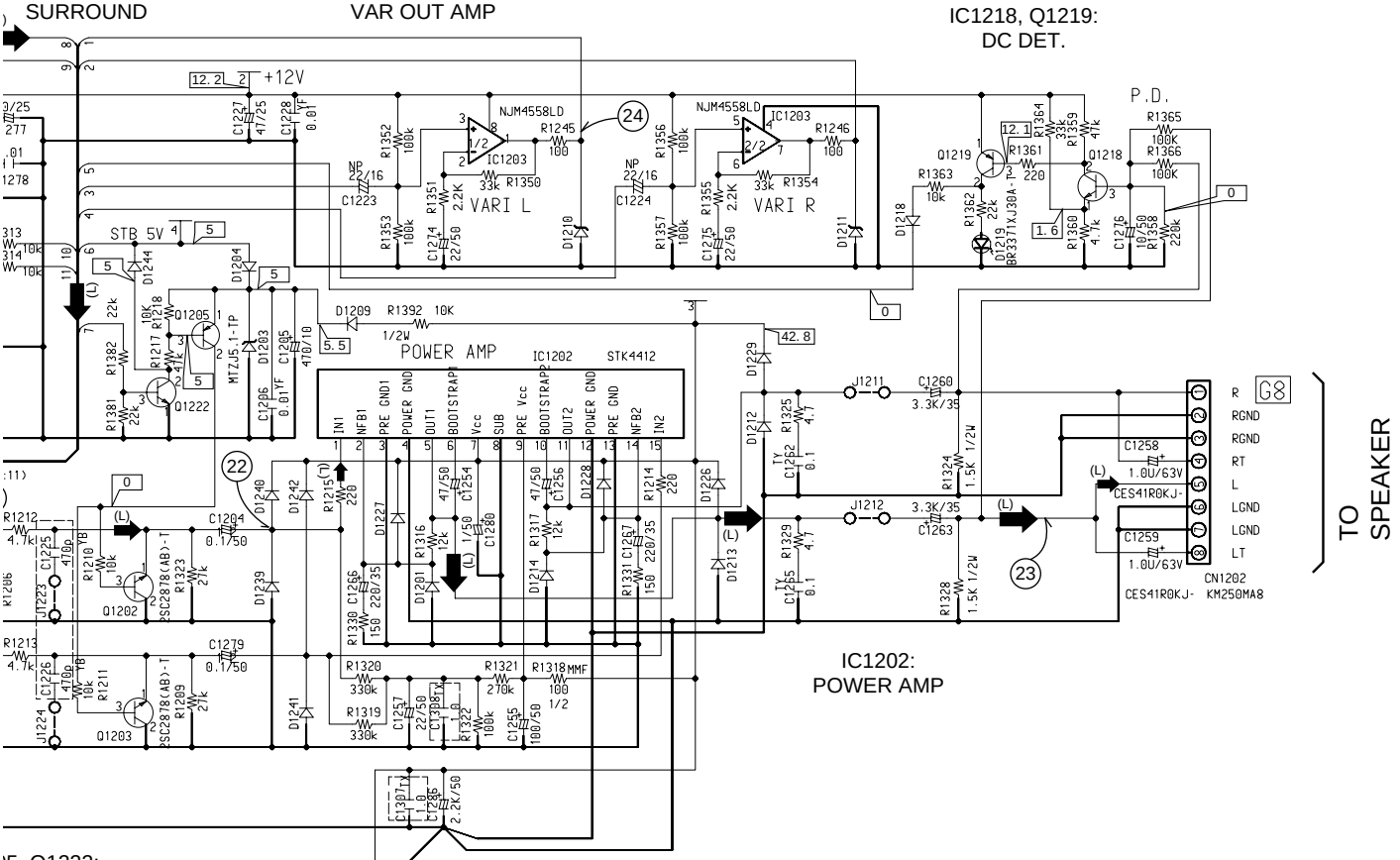
* TruSurround, SRS and the SRS symbol are trademarks of SRS Labs, Inc. TruSurround and SRS are incorporated under a license from SRS Labs, Inc. Patented in the U.S. and selected countries.

IC1205:
SURROUND GAIN
SELECTOR

IC1204:
SURROUND

IC1203:
VAR OUT AMP

IC1218, Q1219:
DC DET.



IC1202:
POWER AMP

)5, Q1222:
E DRIVER

)2, Q1203:
MUTE

1. RESISTERS indicated in ,1/2W,1/4W,1/8W,1WFL,2WFL 5%.
tolerance unless otherwise noted K;KΩ,M;MΩ.
(F)+1%,(G)+2%,(K)+10%,(M)+20% tolerance.
2. CAPACITORS indicated in capasity (F)/(V) unless otherwise noted pF.
indicated without voltage is 50V except electrolytic capacitor.

GNAL ROUTE
▸: Audio Signal Route

Note: As for voltages of IC1201-IC1205 refer to page 69.

IC204

	OFF	SRS	TruSurround
MODE1	LOW	HIGH	HIGH
MODE2	LOW	LOW	HIGH

Q1202, Q1203

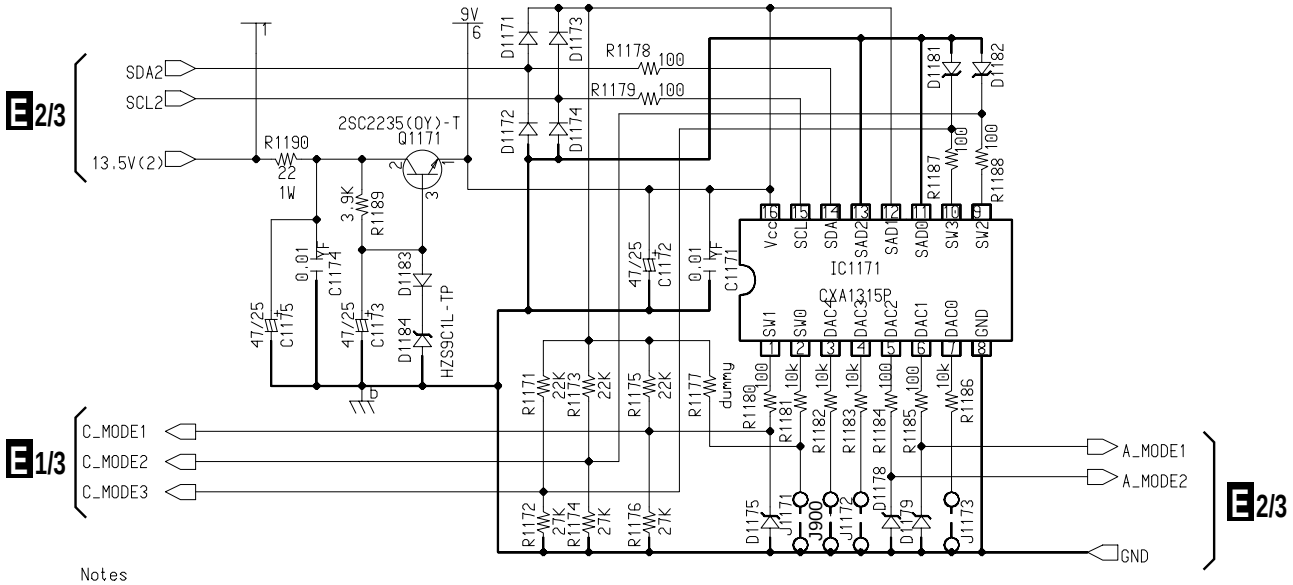
	SP MUTE ON	SP MUTE OFF
A.MUTE	HIGH	LOW

MTZJ15-TP
1SS254-TP
2SA933S(RS)-T
2SC1740S(RS)-T

3.22 AMP ASSY (3/3)

E AMP ASSY(3/3) (AWV1712)

• EXP BLOCK



Notes

1. RESISTERS
   (RS):METAL OXIDE FILM RESISTER
   (RT):CEMENT RESISTER
   (RN):METAL FILM RESISTER
   (FL):NON FLAMMABLE RESISTER
   THE OTHERS:CARBONFILM RESISTER (1/4 W)
   Figures in pharentheses show the rated wattage.
   Those unspecified ones are of 1/4W.
   K:KΩ ,M:MΩ ,Unspecified ones are of Ω.

2. CAPACITORS
   (HA):Aluminium electrolytic capasitors
   p:pF,Unspecified ones are of uF
   Capacity/Voltage
   Unspecified ones are of 50V

: 2SA933S(RS) : 2SC1740S(RS)

: 1SS254 : RD12ESB

E1/3 AMP ASSY (1/3)

IC903 (STK392-040)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	–21.8	12	–23.3
2	–21.8	13	–22.8
3	–22.3	14	22.7
4	0	15	23.5
5	0	16	–23.8
6	0.4	17	–23.8
7	0.4	18	23.5
8	0	19	–23.8
9	0	20	0.2
10	0	21	0.1
11	23.2	22	0

IC904 (STK392-040)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	–21.7	12	–23.3
2	–21.7	13	–22.8
3	–22.2	14	22.7
4	0.1	15	23.6
5	0.1	16	–23.6
6	0	17	–23.6
7	0	18	23.6
8	0	19	–23.6
9	0	20	0.1
10	0	21	0.1
11	23.2	22	0

IC905 (NJM072BD)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	5	0
2	0	6	0
3	0	7	0
4	–5.0	8	5.0

IC906 (M5220P)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	–4.1	5	0
2	0.1	6	0
3	0	7	0
4	–5.0	8	5.0

IC907 (CA0007AD)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	8	0
2	0	9	0
3	1.0	10	0
4	0	11	0
5	0	12	0.1
6	0	13	5.0
7	0	14	–5.0

IC908 (M5220P)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	5	0
2	0	6	0
3	0	7	0
4	–5.0	8	5.0

IC909 (M5220P)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	5	0
2	0	6	0
3	0	7	0
4	–5.0	8	5.0

IC910 (TC4052BP)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	9	5.0
2	0	10	5.0
3	0	11	0
4	0	12	–1.0
5	0	13	0
6	0	14	–0.9
7	–5.0	15	–0.9
8	0	16	5.0

IC911 (TC74HC4538AP)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	9	4.4
2	2.6	10	0.7
3	5.0	11	0.3
4	0.9	12	0
5	5.0	13	5.0
6	4.7	14	4.2
7	0.4	15	0
8	0	16	5.0

IC912 (M5223AP)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0.4	5	0.4
2	0.4	6	0.4
3	0.4	7	0.6
4	0	8	5.0

IC913 (TC74HC4538AP)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	9	4.7
2	4.8	10	0.4
3	5.0	11	4.7
4	0.4	12	0
5	5.0	13	5.0
6	0.3	14	4.5
7	4.8	15	0
8	0	16	5.0

E2/3 AMP ASSY (2/3)

IC1201 (μPC1201)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	11	6.2	21	-
2	6.2	12	6.2	22	5.2
3	6.2	13	6.2	23	0
4	6.2	14	6.2	24	6.1
5	6.2	15	12.2	25	6.2
6	6.2	16	6.2	26	6.2
7	6.2	17	6.2	27	6.2
8	6.2	18	6.2	28	6.2
9	6.2	19	4.7	29	6.2
10	6.2	20	-	30	6.2

IC1202 (STK4412)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	10.9	9	42.1
2	10.6	10	9.6
3	0	11	20.8
4	0	12	0
5	20.8	13	0
6	9.6	14	10.6
7	42.8	15	10.9
8	0		

IC1203 (NJM4558LD)

Pin No.	Voltage [V]
1	6.1
2	6.1
3	6.1
4	0
5	6.1
6	6.1
7	6.1
8	12.1

IC1205 (MC14066BCP)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	8	6.1
2	-	9	6.1
3	6.1	10	0
4	6.1	11	0
5	12.1	12	0
6	12.1	13	0
7	0	14	12.1

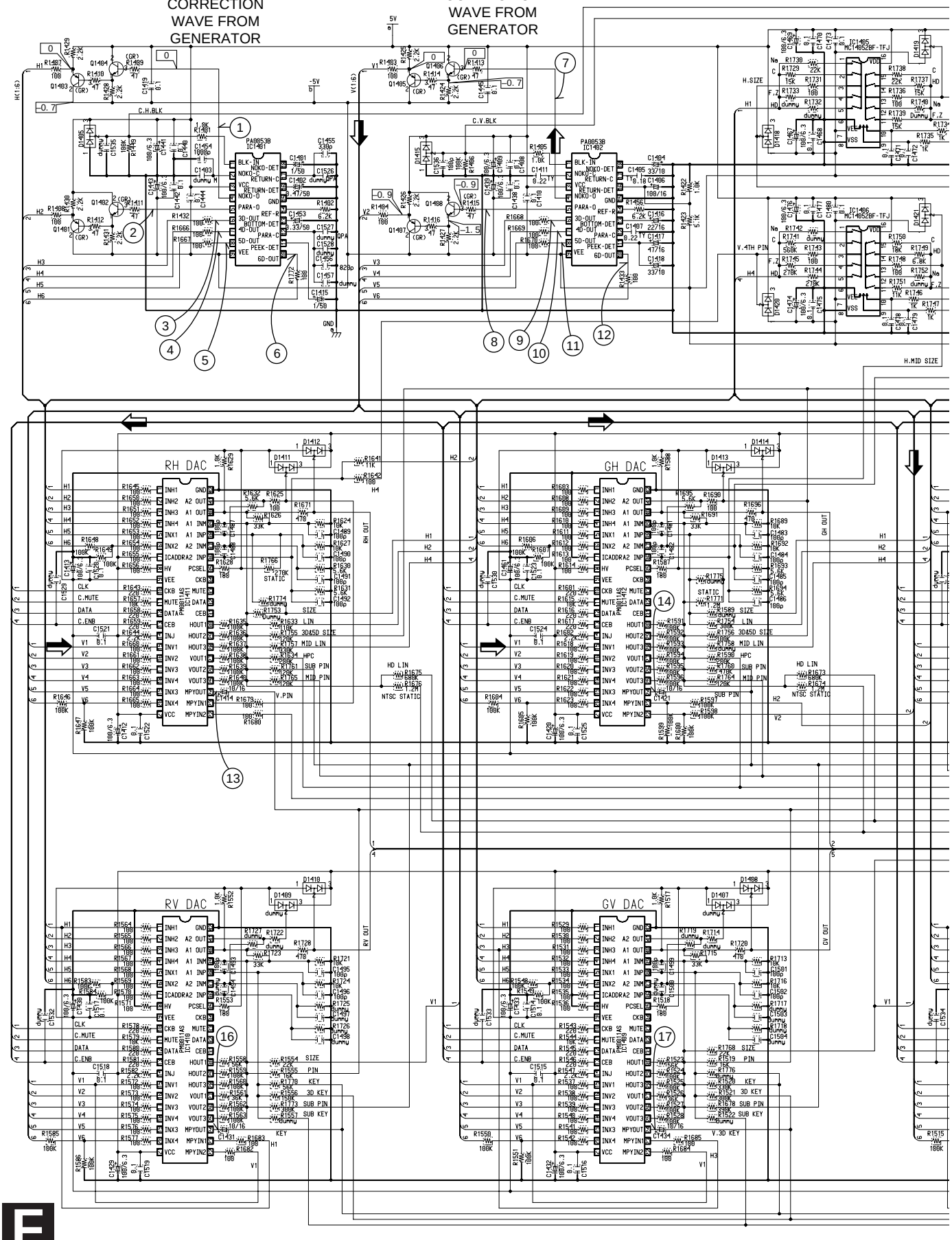
IC1204 (NJM2187L)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	12.2	11	6.1	21	6.1
2	0	12	6.1	22	6.1
3	0	13	6.1	23	6.1
4	6.1	14	6.1	24	6.1
5	0	15	6.1	25	6.1
6	12.2	16	6.1	26	6.1
7	6.1	17	6.1	27	6.1
8	6.1	18	6.1	28	6.1
9	6.1	19	6.1	29	6.1
10	6.1	20	6.1	30	6.1

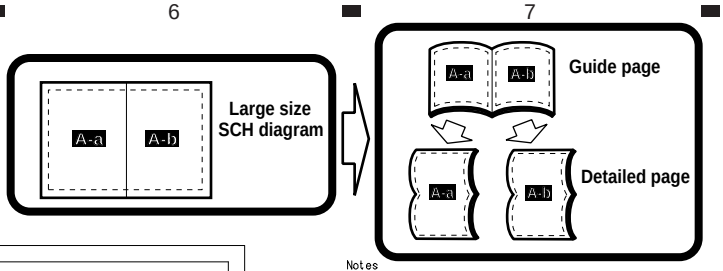
F CONVER.DAC ASSY (AWV

IC1401:
H.CONVERGENCE
CORRECTION
WAVE FROM
GENERATOR

IC1402:
V.CONVERGENCE
CORRECTION
WAVE FROM
GENERATOR



(AWV6333)



Notes
1. RESISTERS
(RS):METAL OXIDE FILM RESISTER
(RT):CEMENT RESISTER
(RN):METAL FILM RESISTER
(FL):NON FLAMMABLE RESISTER
THE OTHERS:FIXED CHIP RESISTORS (1/16 W)
Figures in pharentheses show the rated wattage.
Those unspecified ones are of 1/4W.
K:KΩ ,M:MΩ ,Unspecified ones are of Ω

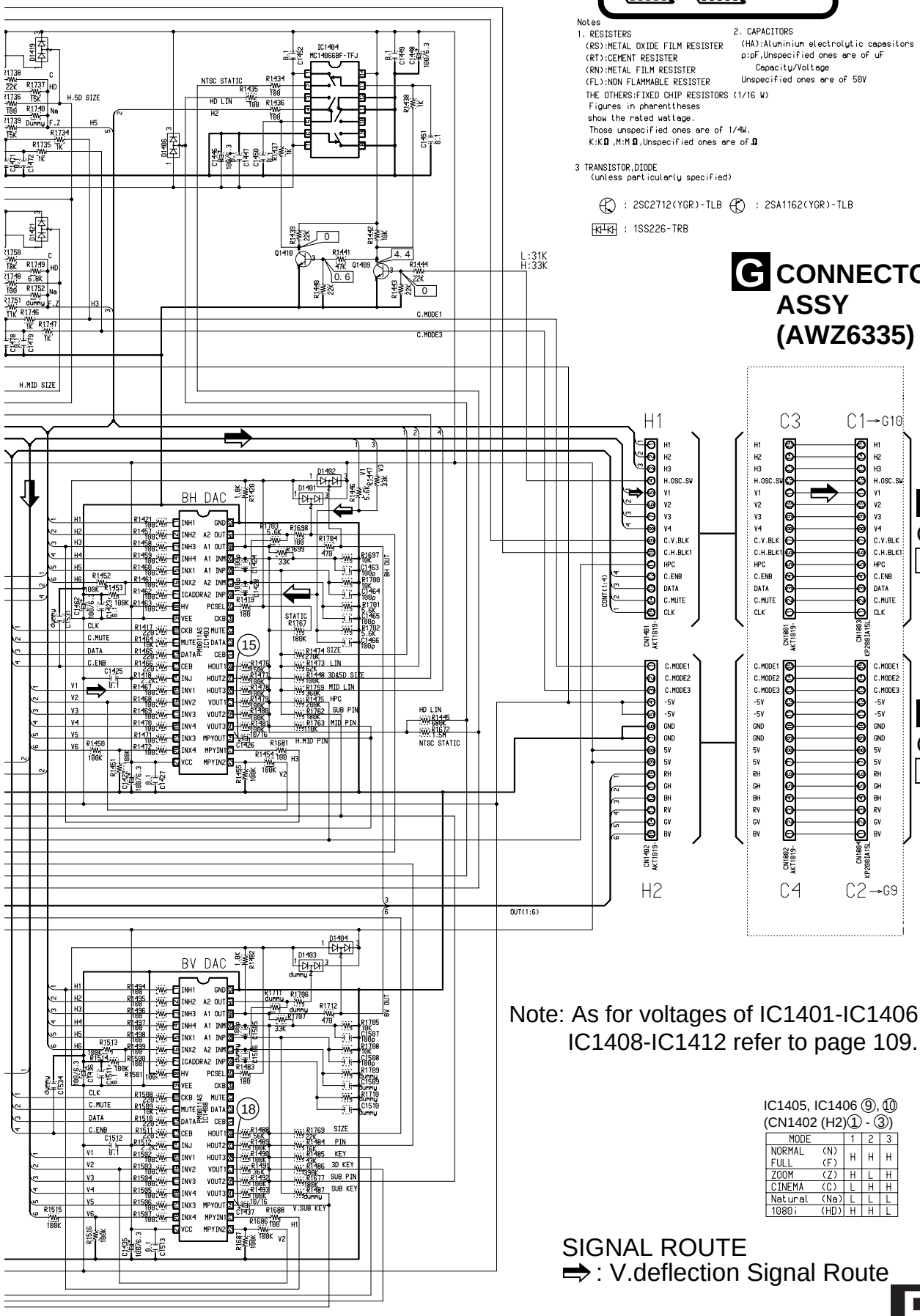
2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V

3 TRANSISTOR,DIODE
(unless particularly specified)

: 2SC2712(YGR)-TLB : 2SA1162(YGR)-TLB

: 1SS226-TRB

G CONNECTOR ASSY (AWZ6335)



Note: As for voltages of IC1401-IC1406 and IC1408-IC1412 refer to page 109.

IC1405, IC1406 ⑨, ⑩
(CN1402 (H2)① - ③)

MODE		1	2	3
NORMAL	(N)	H	H	H
FULL	(F)			
ZOOM	(Z)	H	L	H
CINEMA	(C)	L	H	H
Natural	(Na)	L	L	L
1080i	(HD)	H	H	L

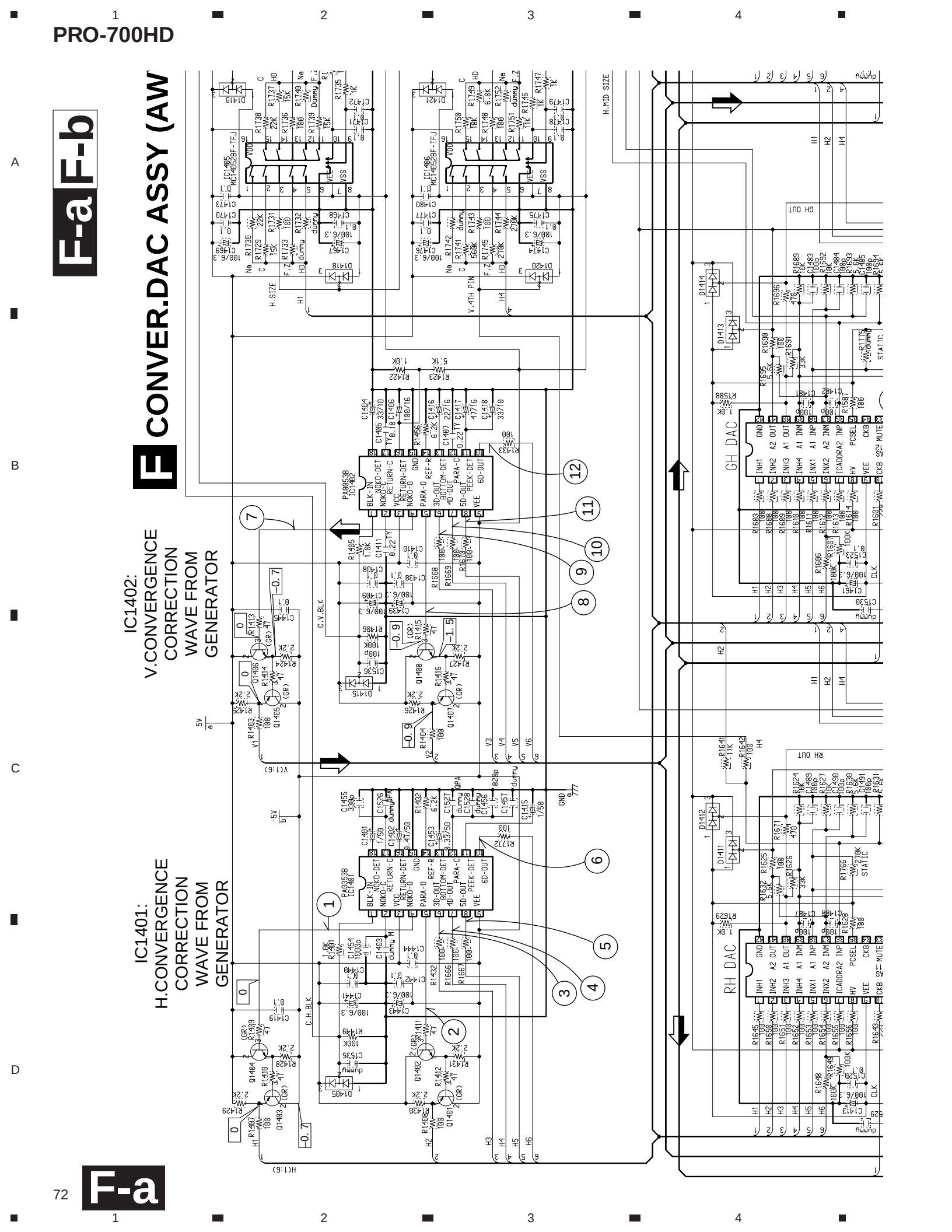
SIGNAL ROUTE
⇨ : V.deflection Signal Route

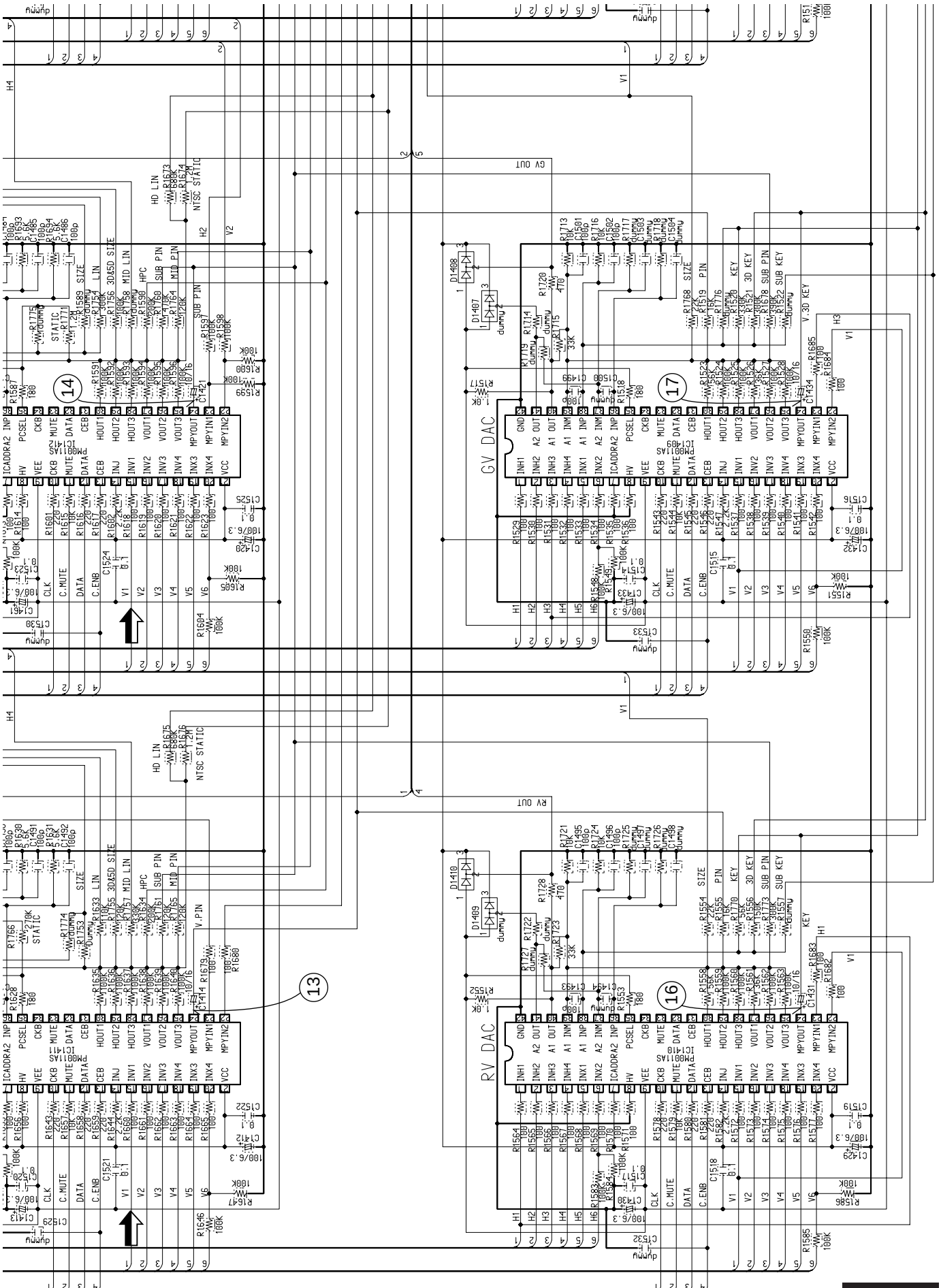
F-a F-b

F CONVER.DAC ASSY (AW

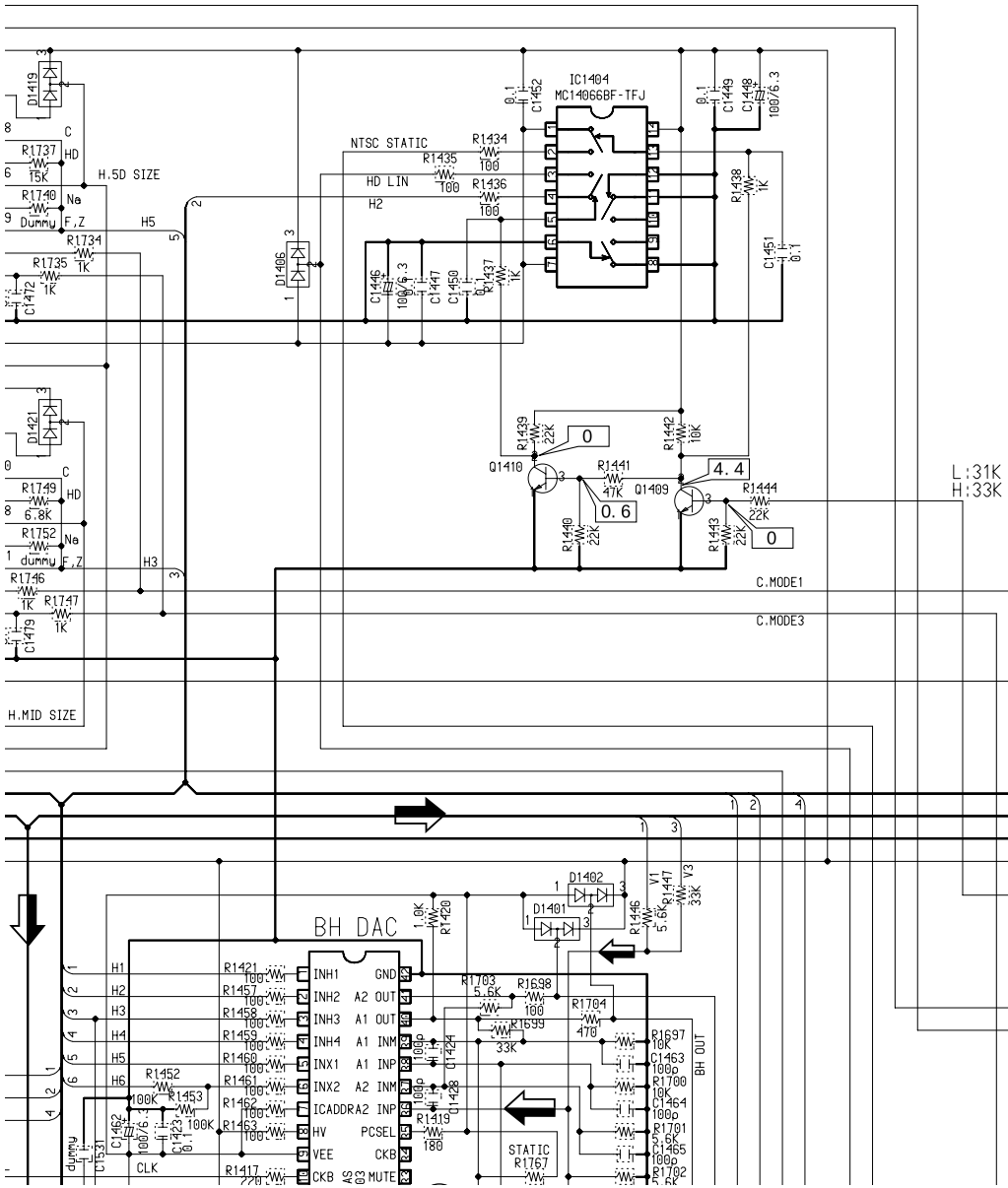
IC1402:
V.CONVERGENCE
CORRECTION
WAVE FROM
GENERATOR

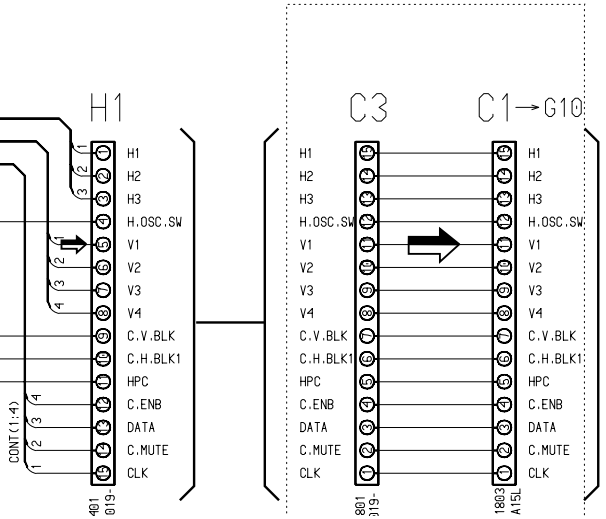
IC1401:
H.CONVERGENCE
CORRECTION
WAVE FROM
GENERATOR




GV DAC
RV DAC
GV OUT
RV OUT
HD LIN
NTSC STATIC
V.3D KEY
SUB KEY
SUB P/N
MID P/N
HPC
SIZE
LIN
3D45D SIZE
MID LIN
STATIC
V.PIN
14
17
13
16

AWV6333)





Notes

1. RESISTERS
   (RS):METAL OXIDE FILM RESISTER
   (RT):CEMENT RESISTER
   (RN):METAL FILM RESISTER
   (FL):NON FLAMMABLE RESISTER
   THE OTHERS:FIXED CHIP RESISTORS (1/16 W)
   Figures in pharenttheses show the rated wattage.
   Those unspecified ones are of 1/4W.
   K:KΩ ,M:MΩ ,Unspecified ones are of Ω

2. CAPACITORS
   (HA):Aluminium electrolytic capasitors
   ρ:pF,Unspecified ones are of uF
   Capacity/Voltage
   Unspecified ones are of 50V

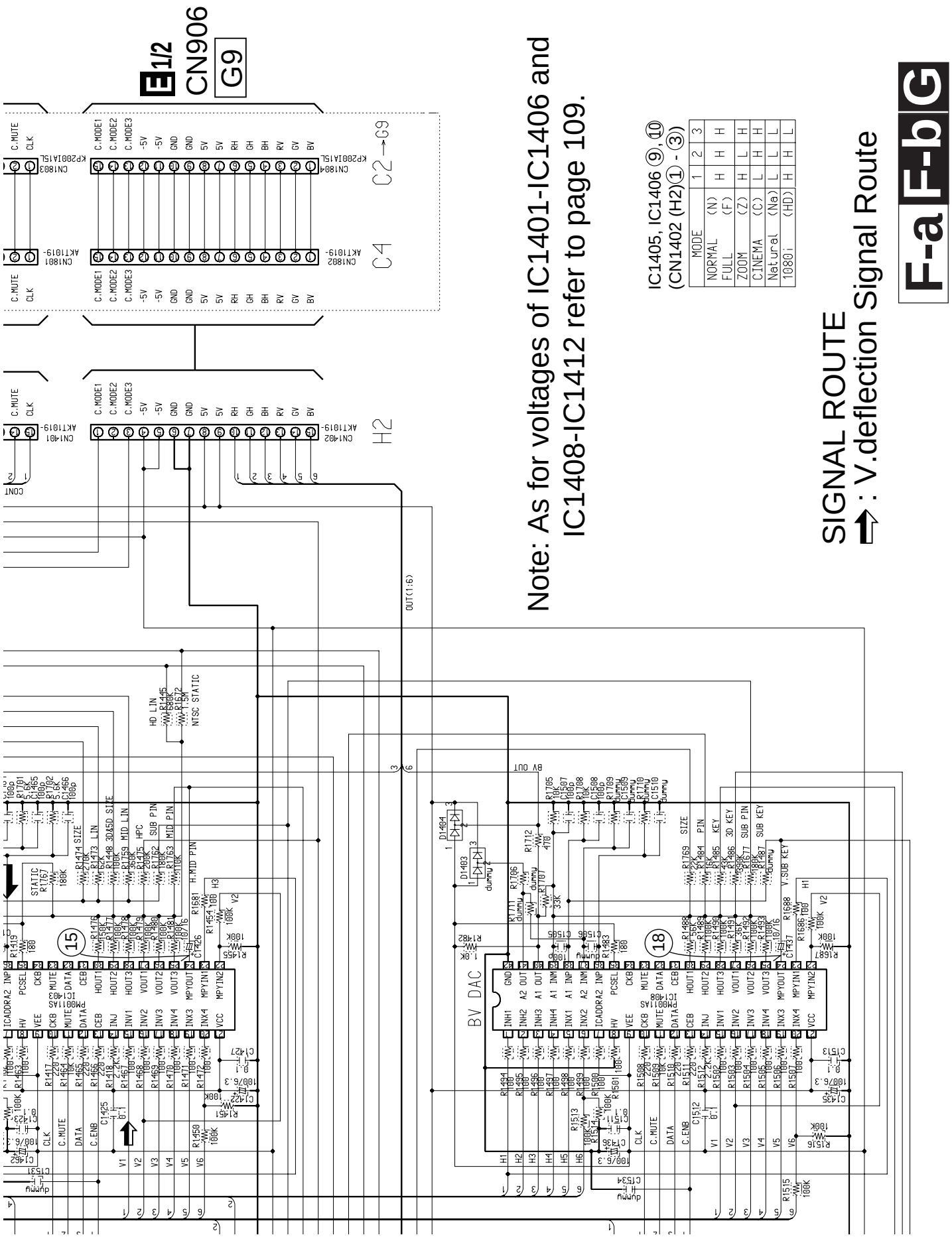
3 TRANSISTOR,DIODE
(unless particularly specified)

: 2SC2712(YGR)-TLB : 2SA1162(YGR)-TLB

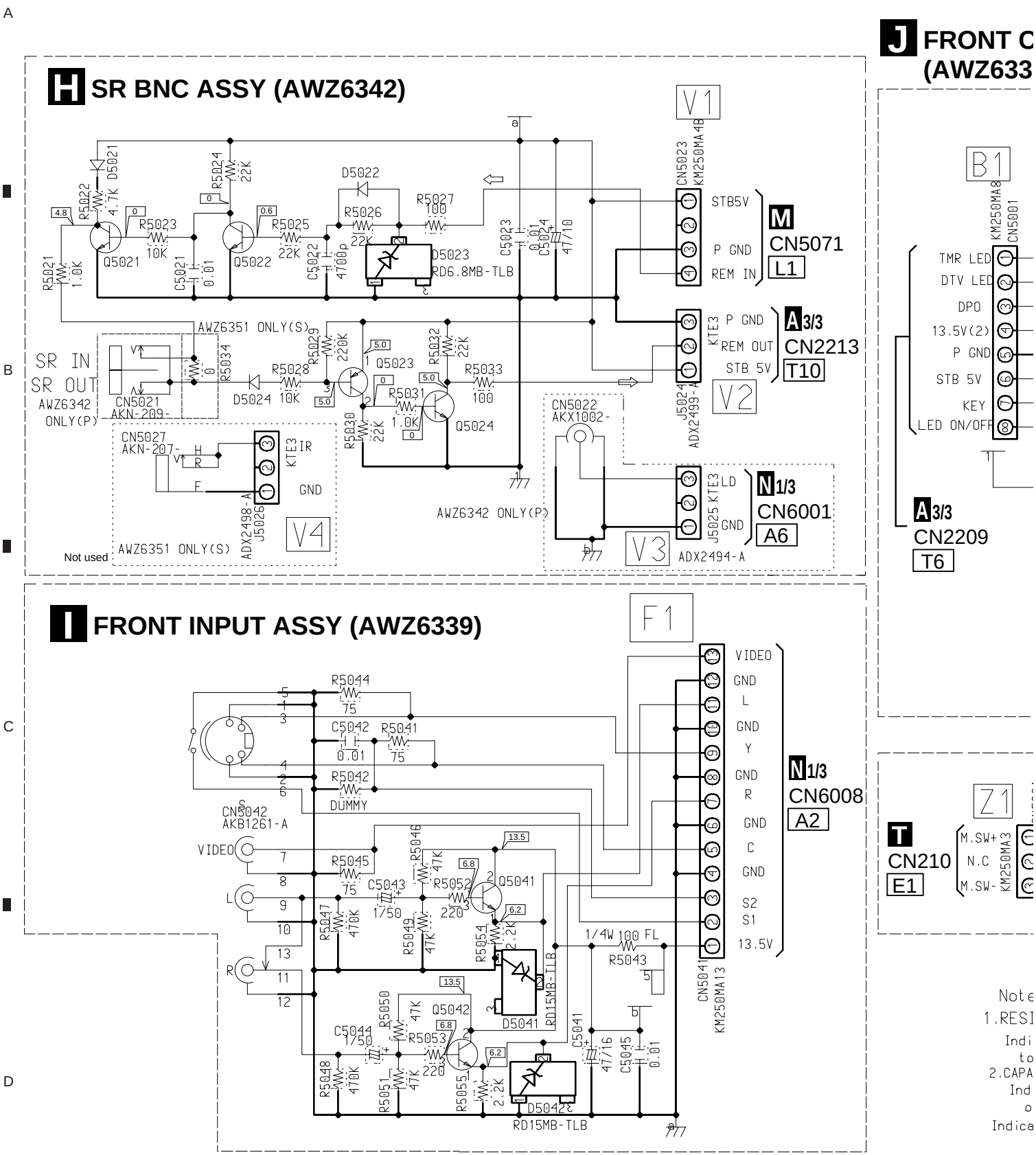
: 1SS226-TRB

G CONNECTOR ASSY (AWZ6335)

E 1/2
CN905
G10

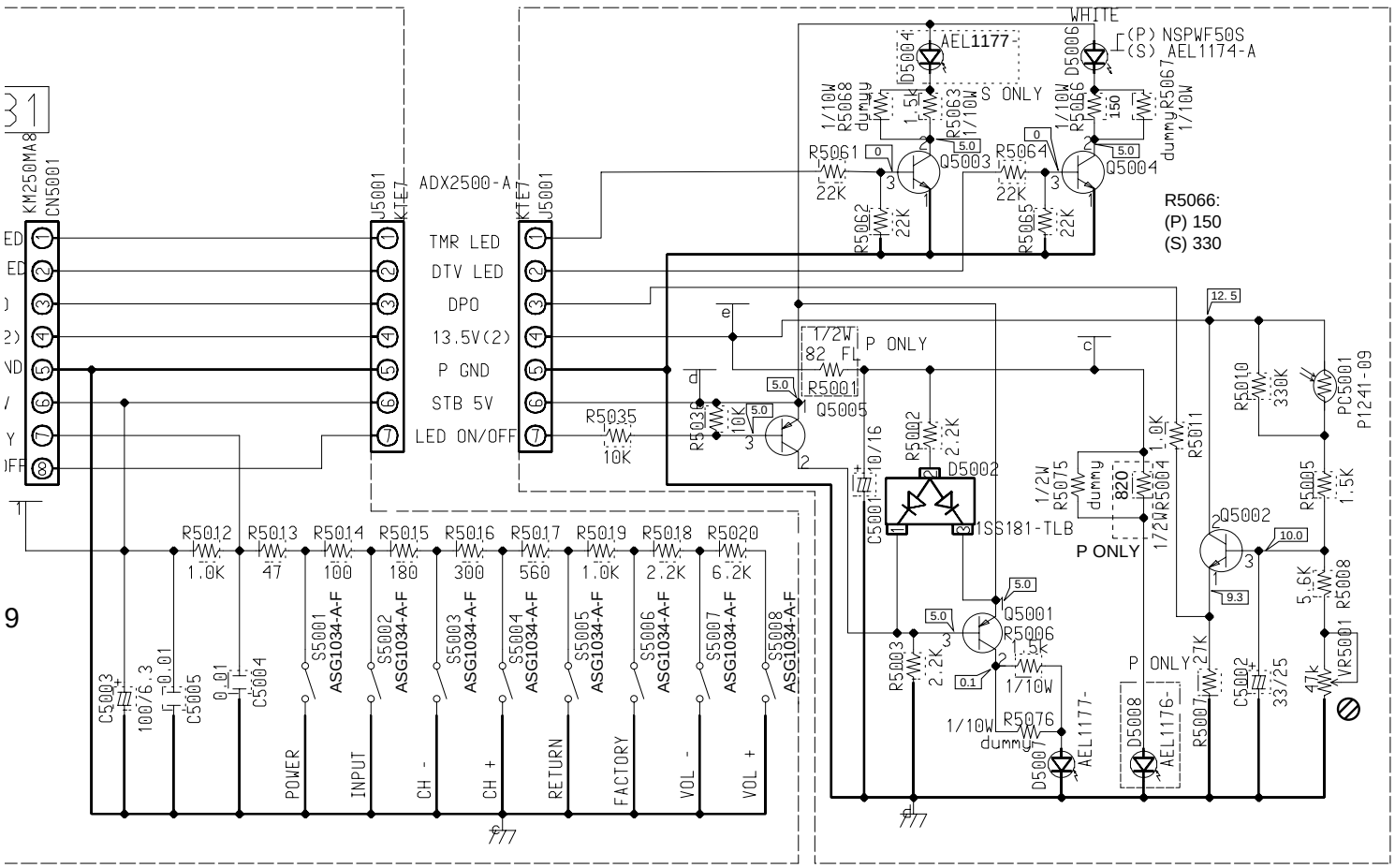

E1/2
CN906
G9
C4
C2→G9
H2
Note: As for voltages of IC1401-IC1406 and IC1408-IC1412 refer to page 109.
IC1405, IC1406 ⑨, ⑩
(CN1402 (H2)① - ③)
MODE 1 2 3
NORMAL (N) H H H
FULL (F)
ZOOM (Z) H L H
CINEMA (C) L H H
Natural (Na) L L L
1080i (HD) H H L
SIGNAL ROUTE
: V.deflection Signal Route
F-a F-b G
BV DAC
OUT(1;6)

3.24 SR BNC ASSY, FRONT INPUT ASSY, FRONT CONTROL ASSY, LED DPO ASSY, POWER SW ASSY, SR ASSY

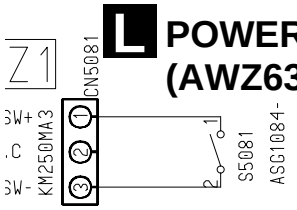


NT CONTROL ASSY Z6337)

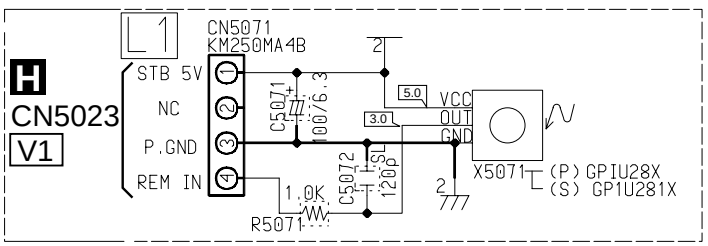
K LED DPO ASSY (AWZ6338)



L POWER SW ASSY (AWZ6341)



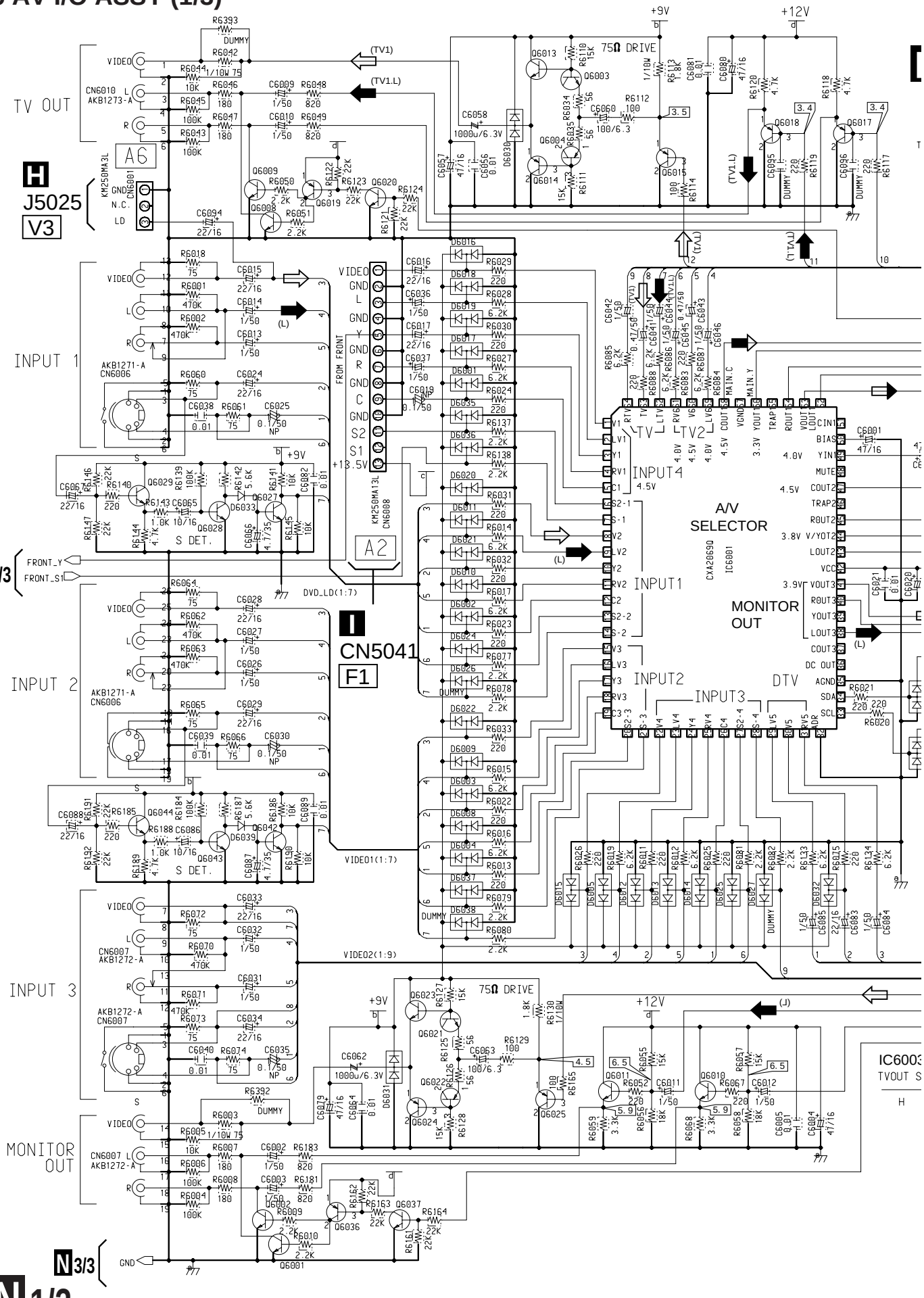
M SR ASSY (AWZ6340)



Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k k
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

PRO-700HD

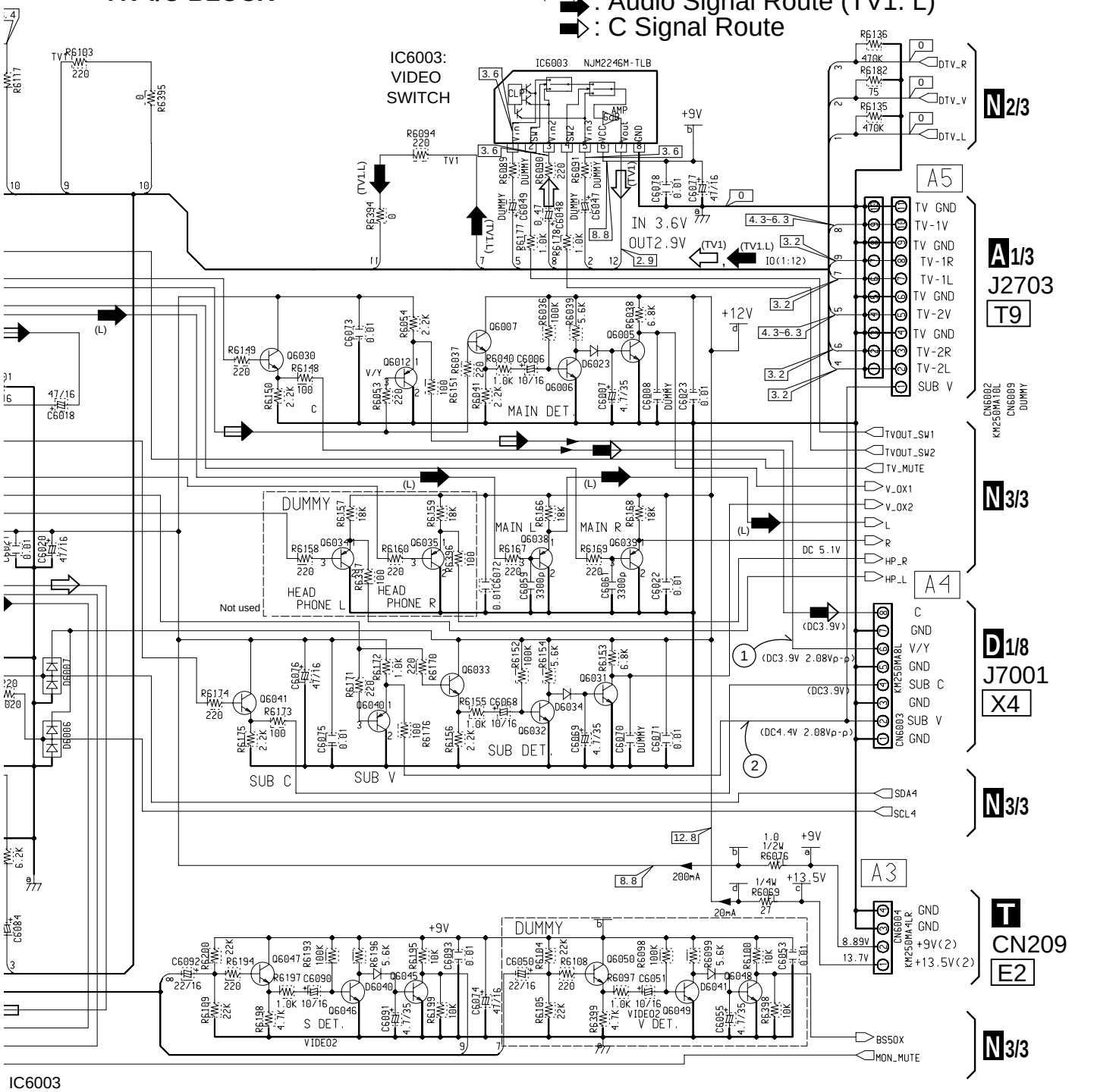
3.25 AV I/O ASSY (1/3)



N AV I/O ASSY(1/3) (AWV1714)

• AV I/O BLOCK

SIGNAL ROUTE
- ⇨ : Video Signal Route
- (TV1) ⇨ : Video Signal Route (TV1)
- ➡ : Audio Signal Route
- ⇨ : Y Signal Route
- (TV1.L) ➡ : Audio Signal Route (TV1. L)
- ➡ : C Signal Route



IC6003

TVOUT SW1	TVOUT SW2	TV OUT
H	L	TV1

2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS226-TRB
1SS352-TRB

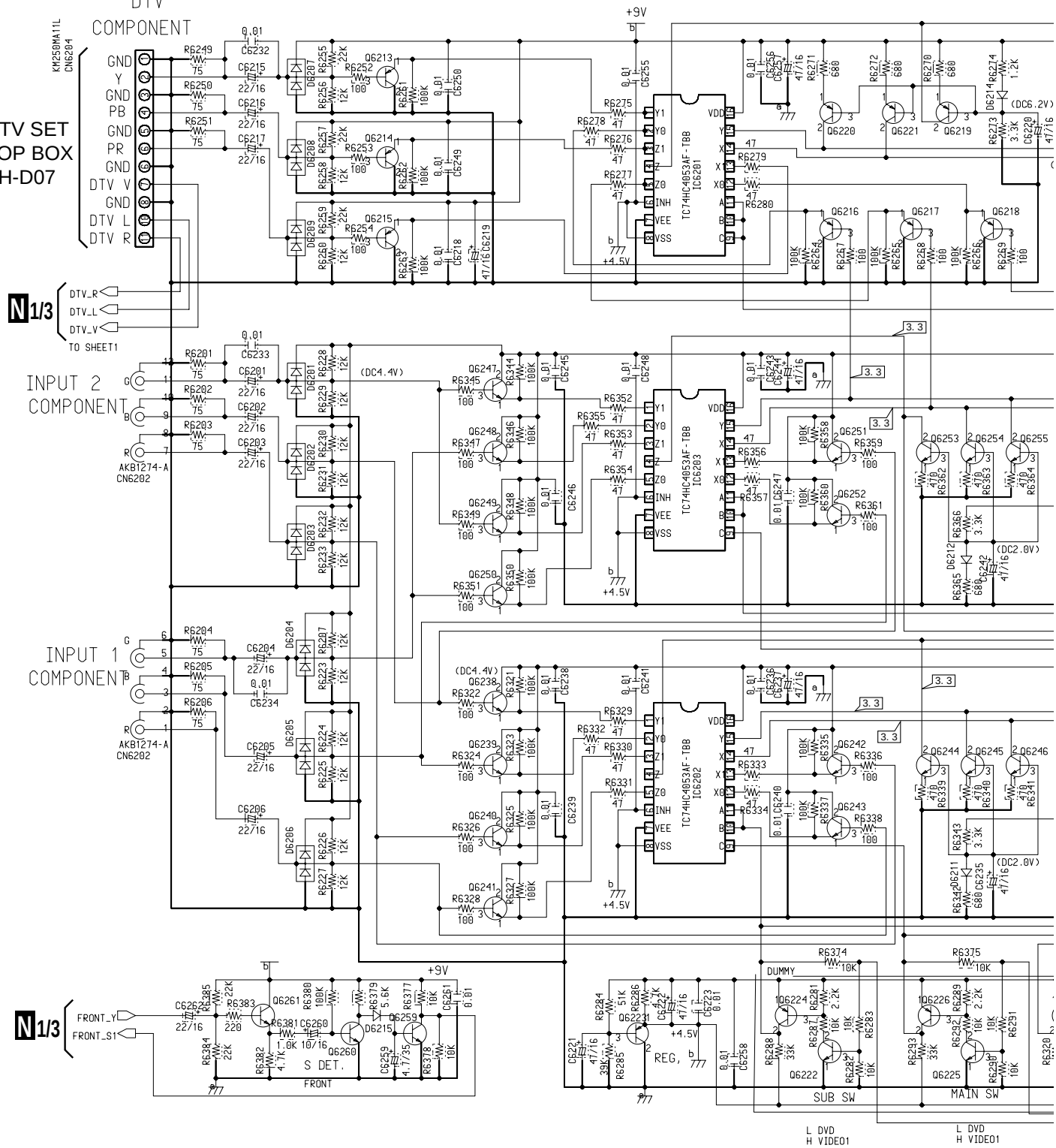
Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

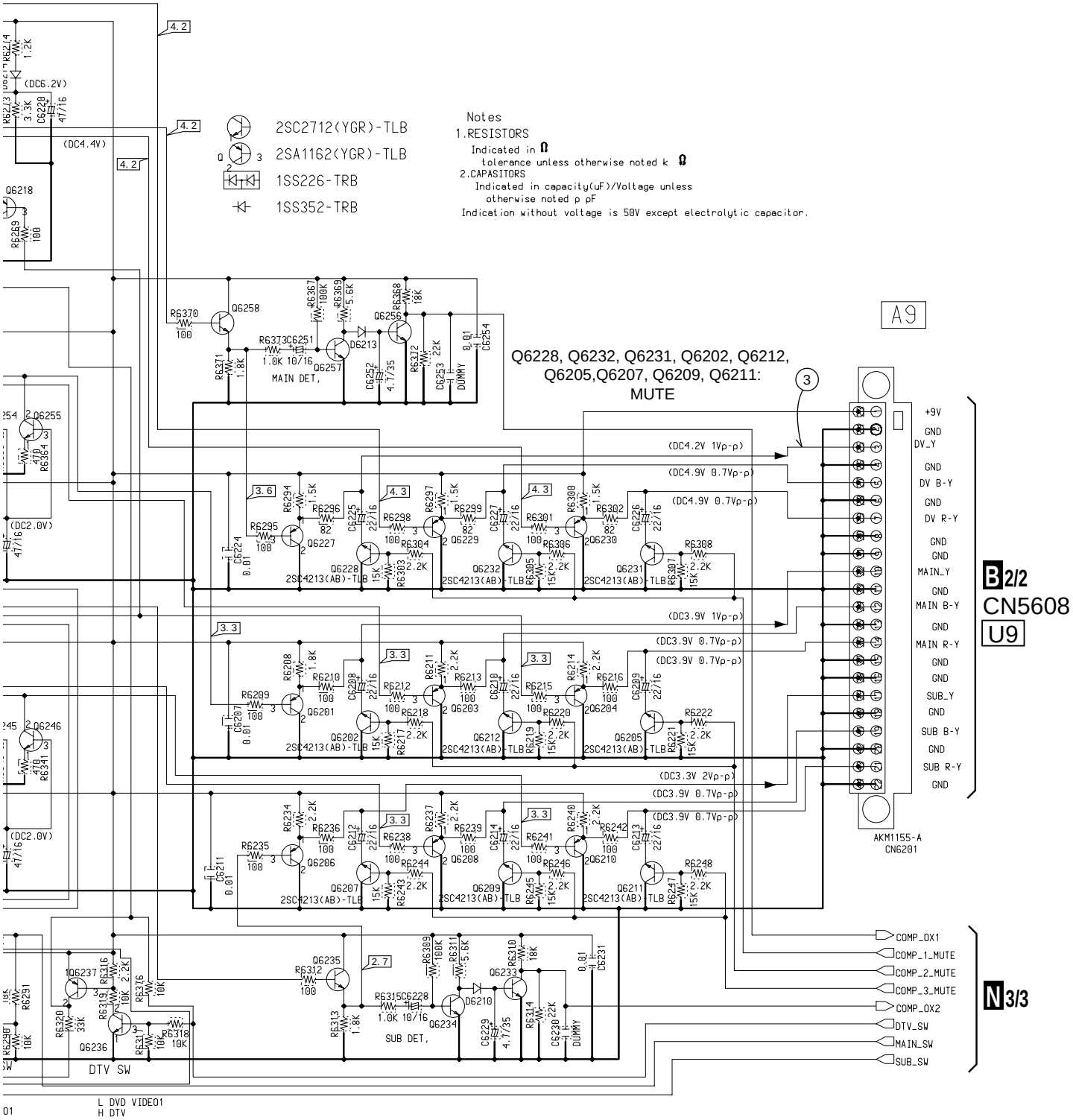
Note: As for voltages of IC6001 refer to page 110.

3.26 AV I/O ASSY (2/3)

N AV I/O ASSY(2/3) (AWV1714)

• COMPONENT BLOCK

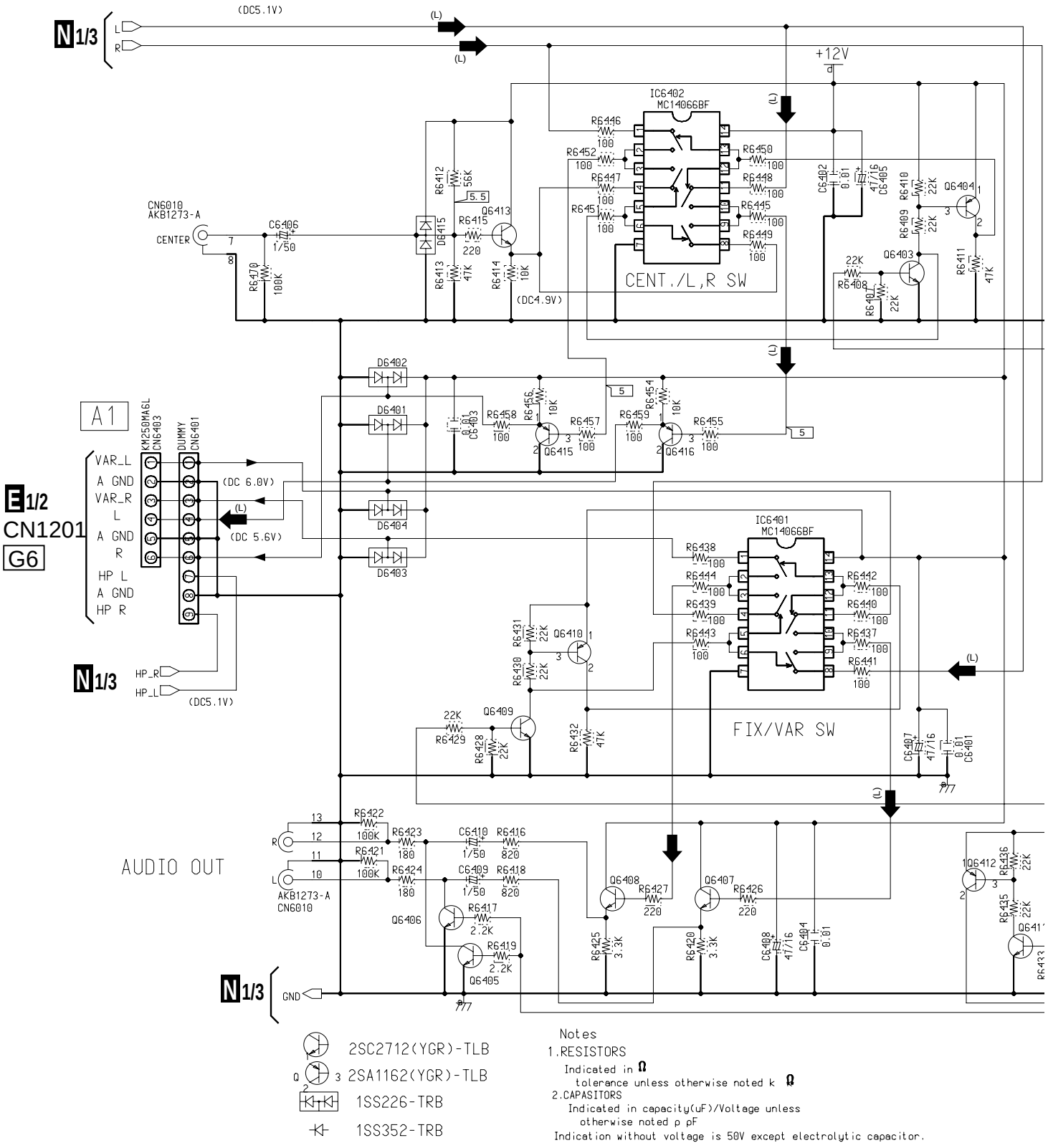


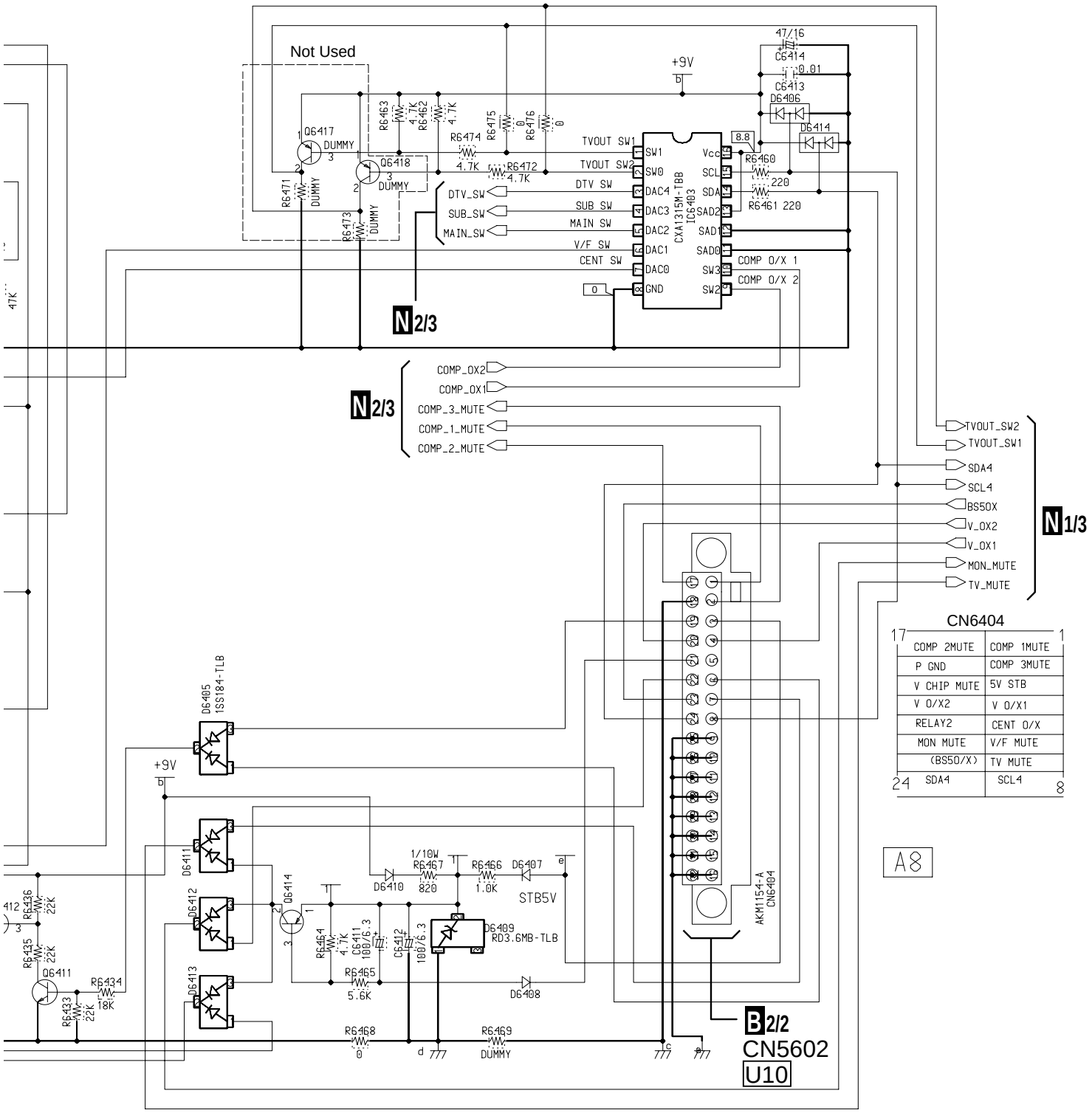

2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS226-TRB
1SS352-TRB
Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.
Q6228, Q6232, Q6231, Q6202, Q6212, Q6205,Q6207, Q6209, Q6211: MUTE
A9
MAIN DET,
SUB DET,
DTV SW
(DC4.2V 1Vp-p)
(DC4.9V 0.7Vp-p)
(DC3.9V 1Vp-p)
(DC3.9V 0.7Vp-p)
(DC3.3V 2Vp-p)
+9V
GND
DV_Y
DV B-Y
DV R-Y
MAIN_Y
MAIN B-Y
MAIN R-Y
SUB_Y
SUB B-Y
SUB R-Y
AKM1155-A
CN6201
B 2/2
CN5608
U9
COMP_OX1
COMP_1_MUTE
COMP_2_MUTE
COMP_3_MUTE
COMP_OX2
DTV_SW
MAIN_SW
SUB_SW
N 3/3
L DVD VIDEO1
H DTV

3.27 AV I/O ASSY (3/3)

N AV I/O ASSY(3/3) (AWV1714)

• SOUND BLOCK

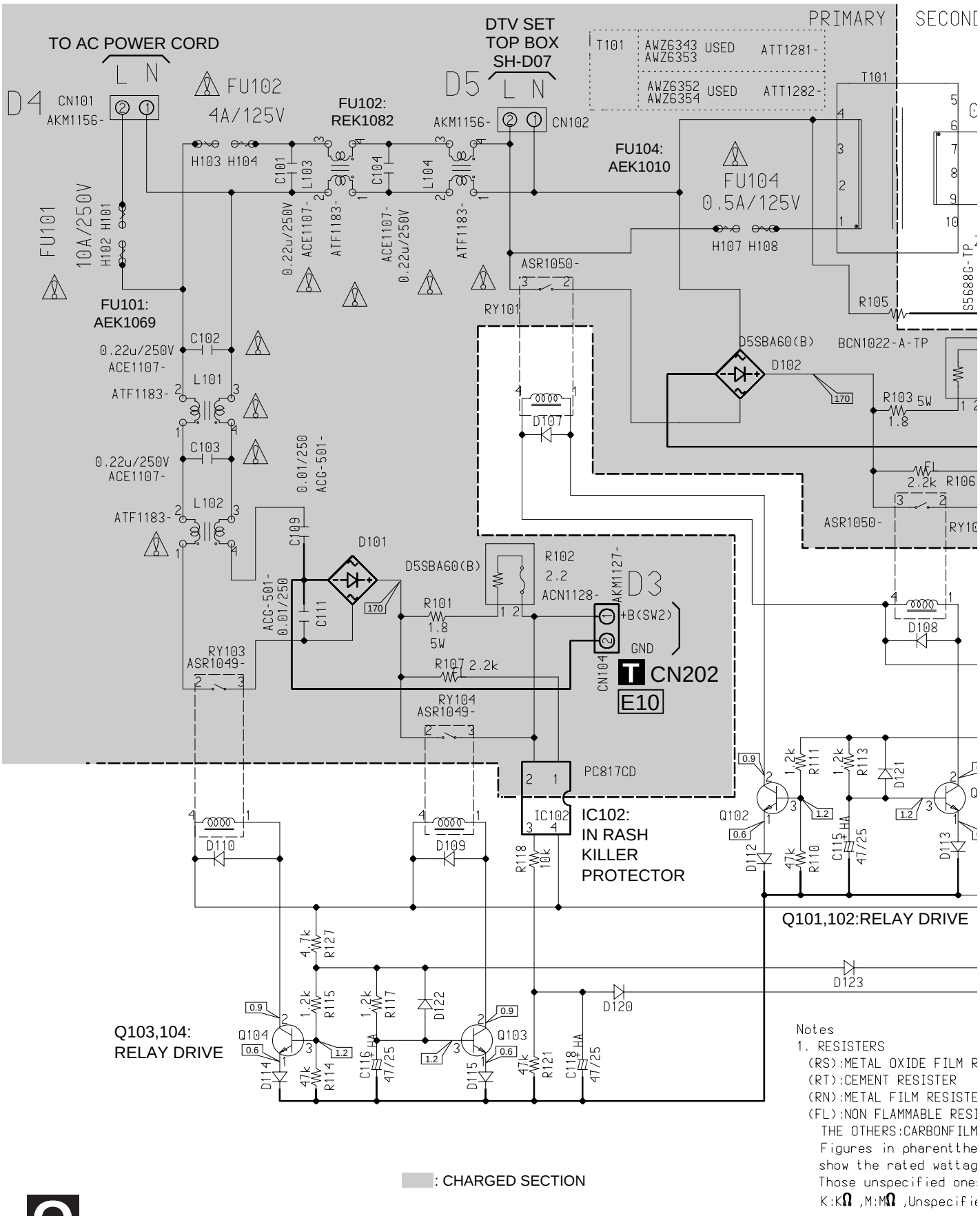




SIGNAL ROUTE
➡: Audio Signal Route

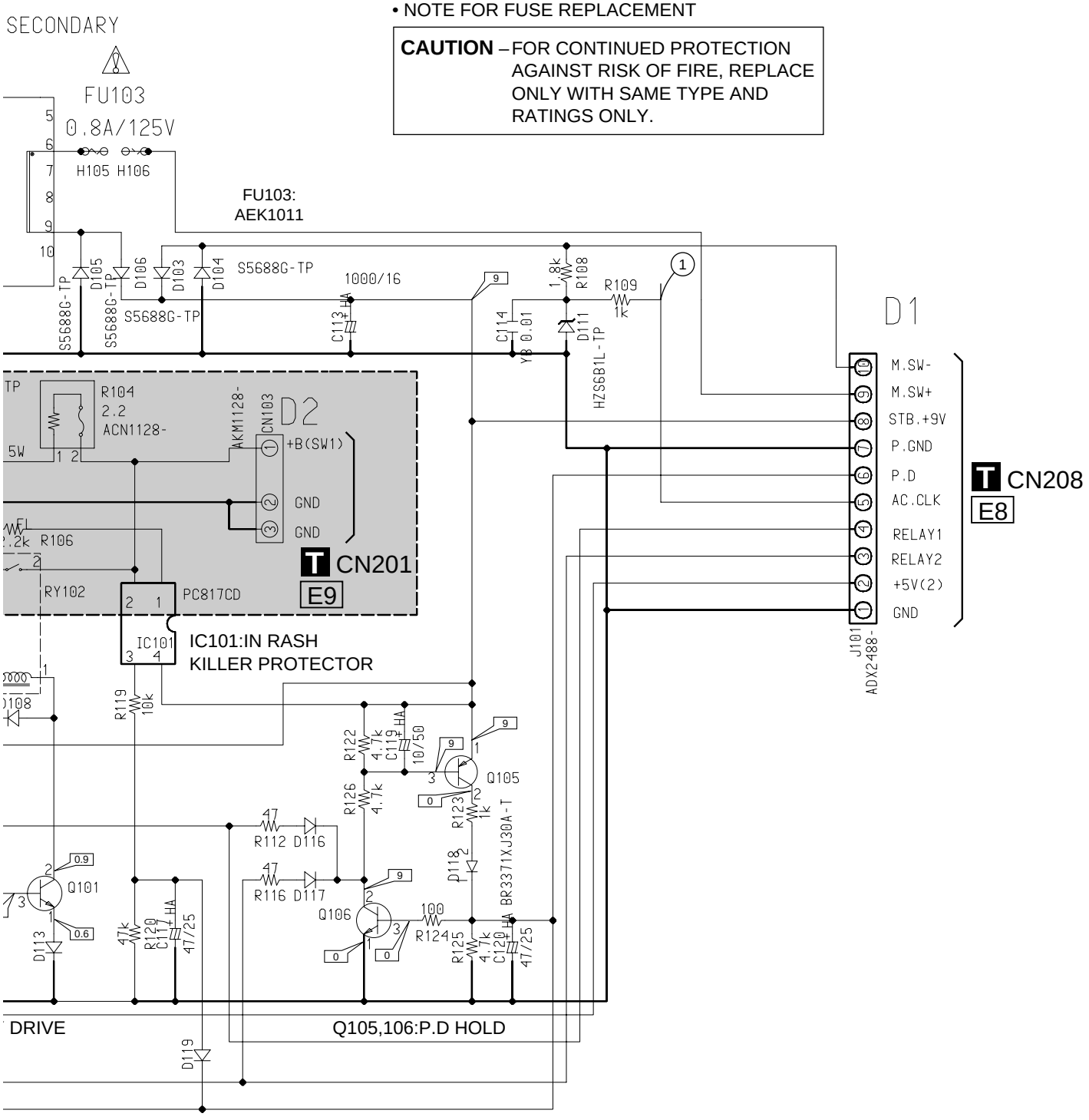
3.28 AC IN ASSY

AC IN ASSY (AWZ6353)



• NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.



DE FILM RESISTER
SISTER
M RESISTER
ABLE RESISTER
ARBONFILM RESISTER (1/4 W)
narentheses
ed wattage.
ified ones are of 1/4W.
Unspecified ones are of Ω

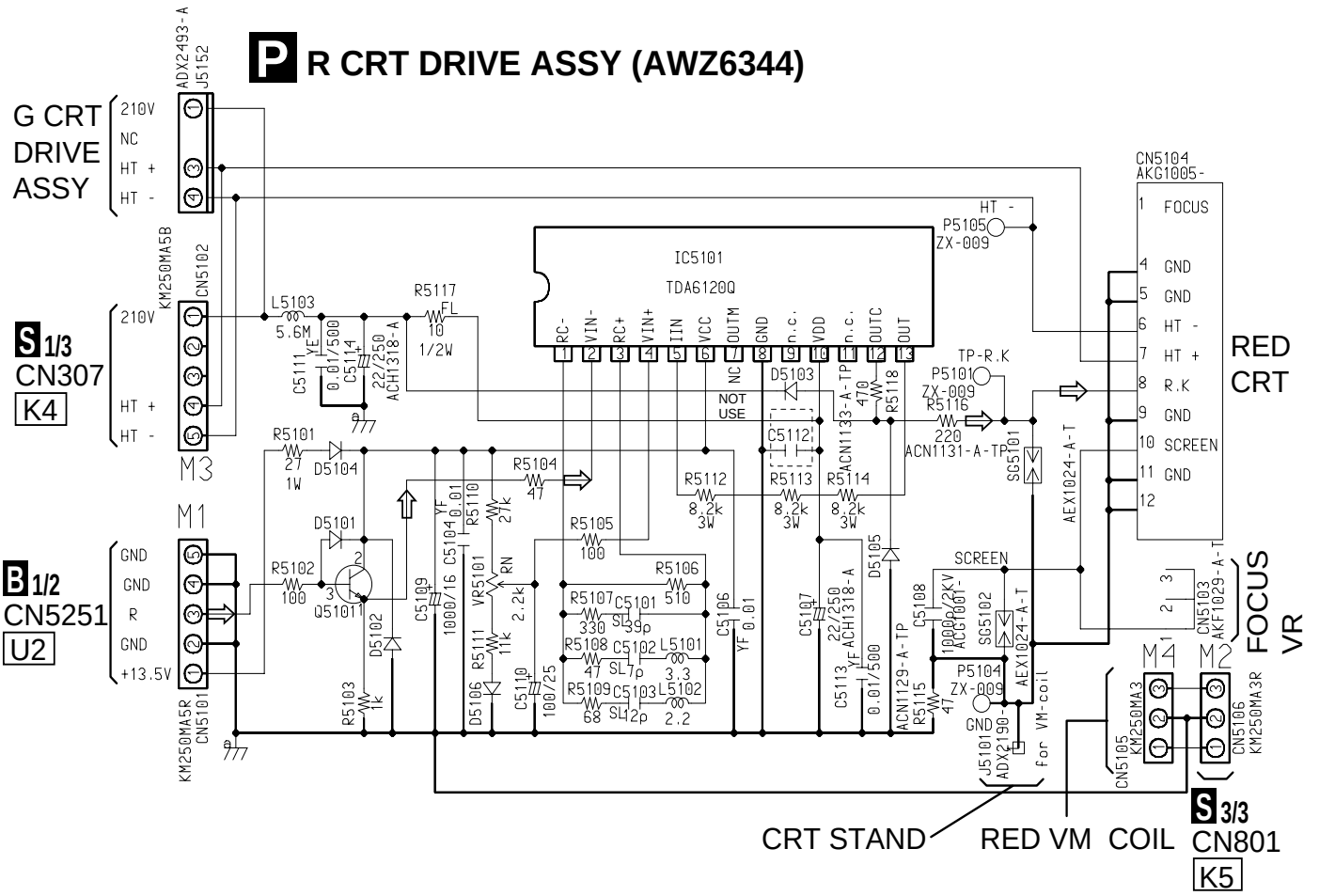
2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V

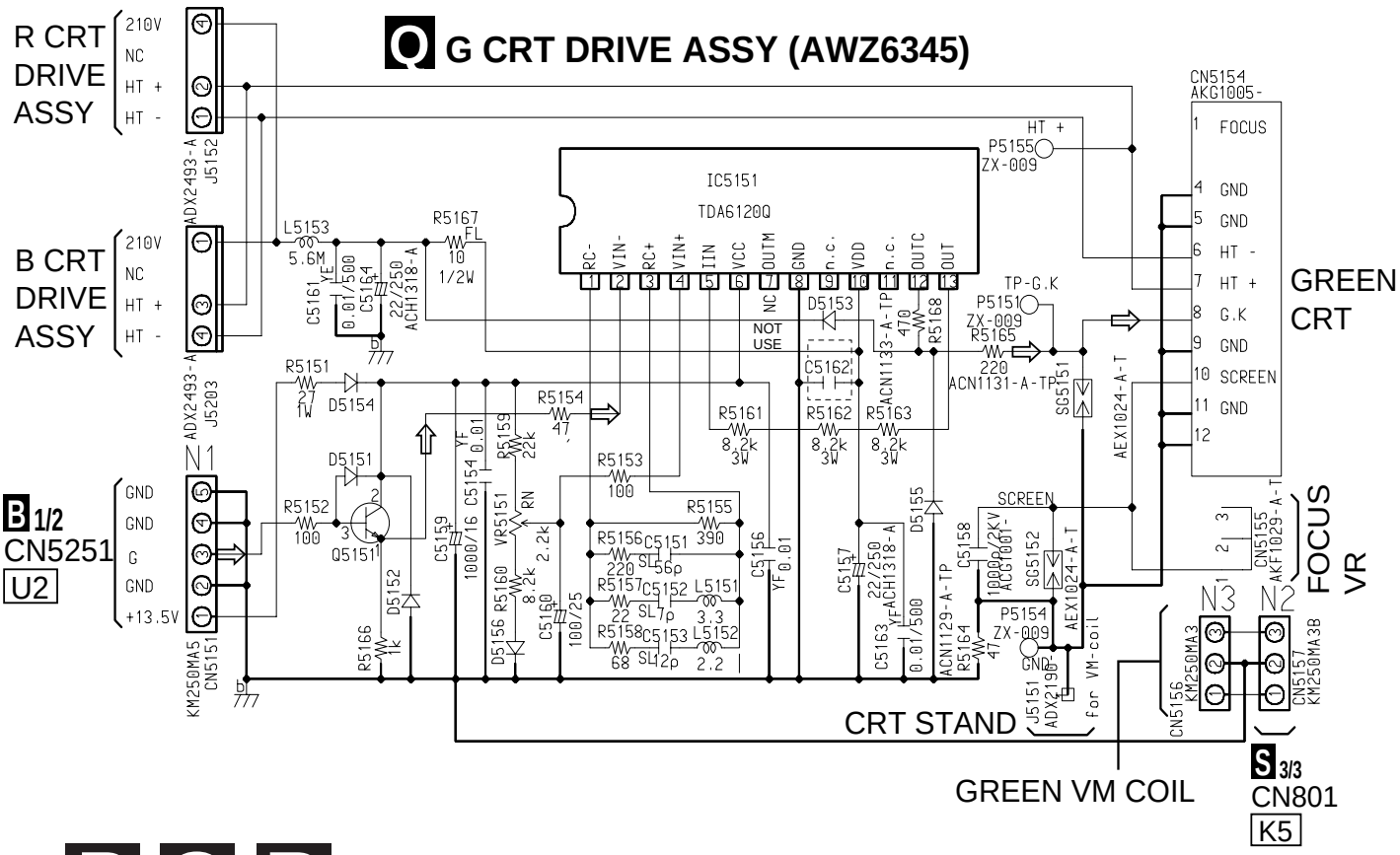
: 2SA933S(RS) : 2SC1740S(RS)

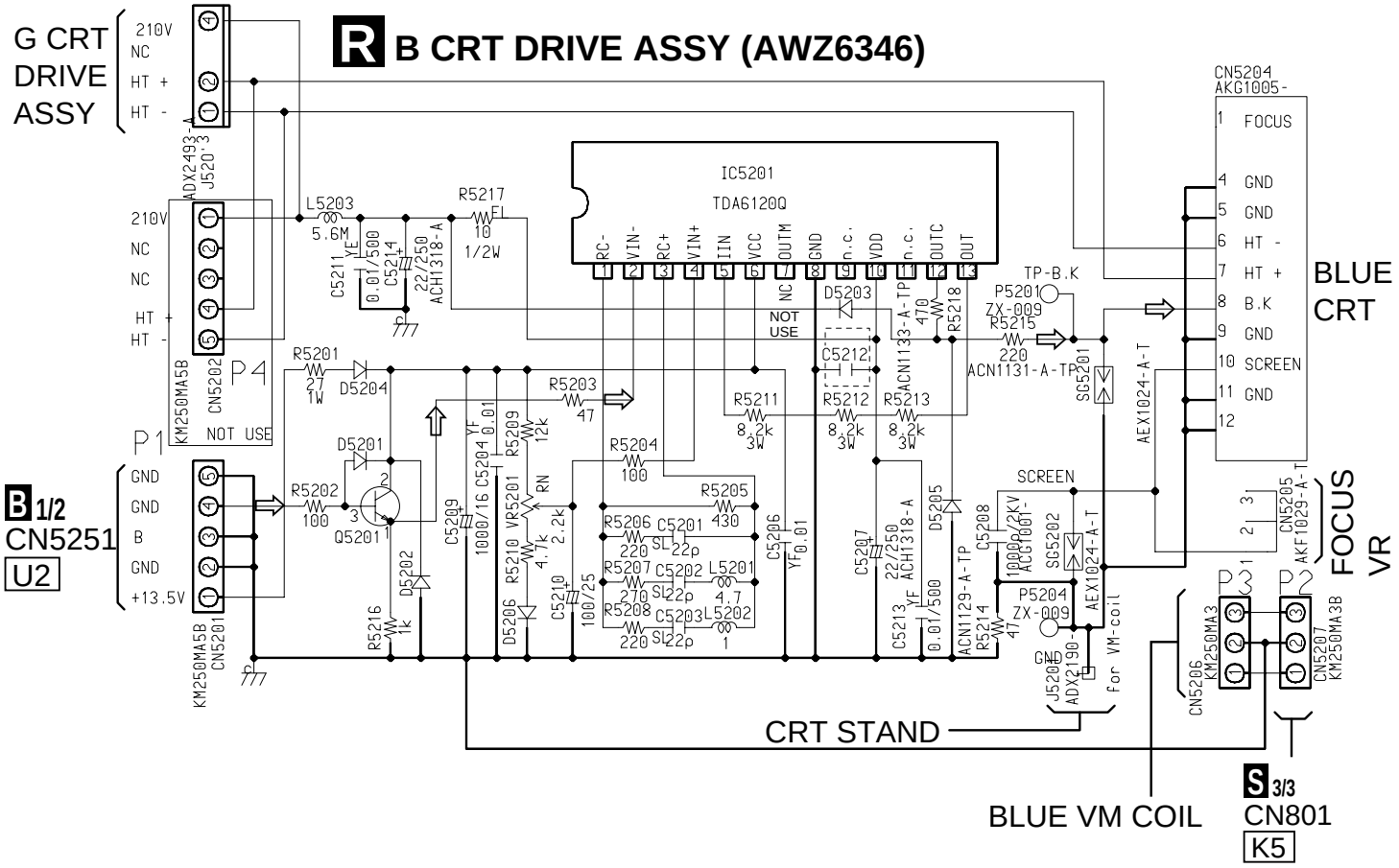
: 1SS254

3. The ⚠ mark found on same component parts of indicates the importance of the safety factor of the parts. Therefore,when replacing,be sure to use parts of identical de-signation.

3.29 R CRT DRIVE ASSY, G CRT DRIVE ASSY, B CRT DRIVE ASSY

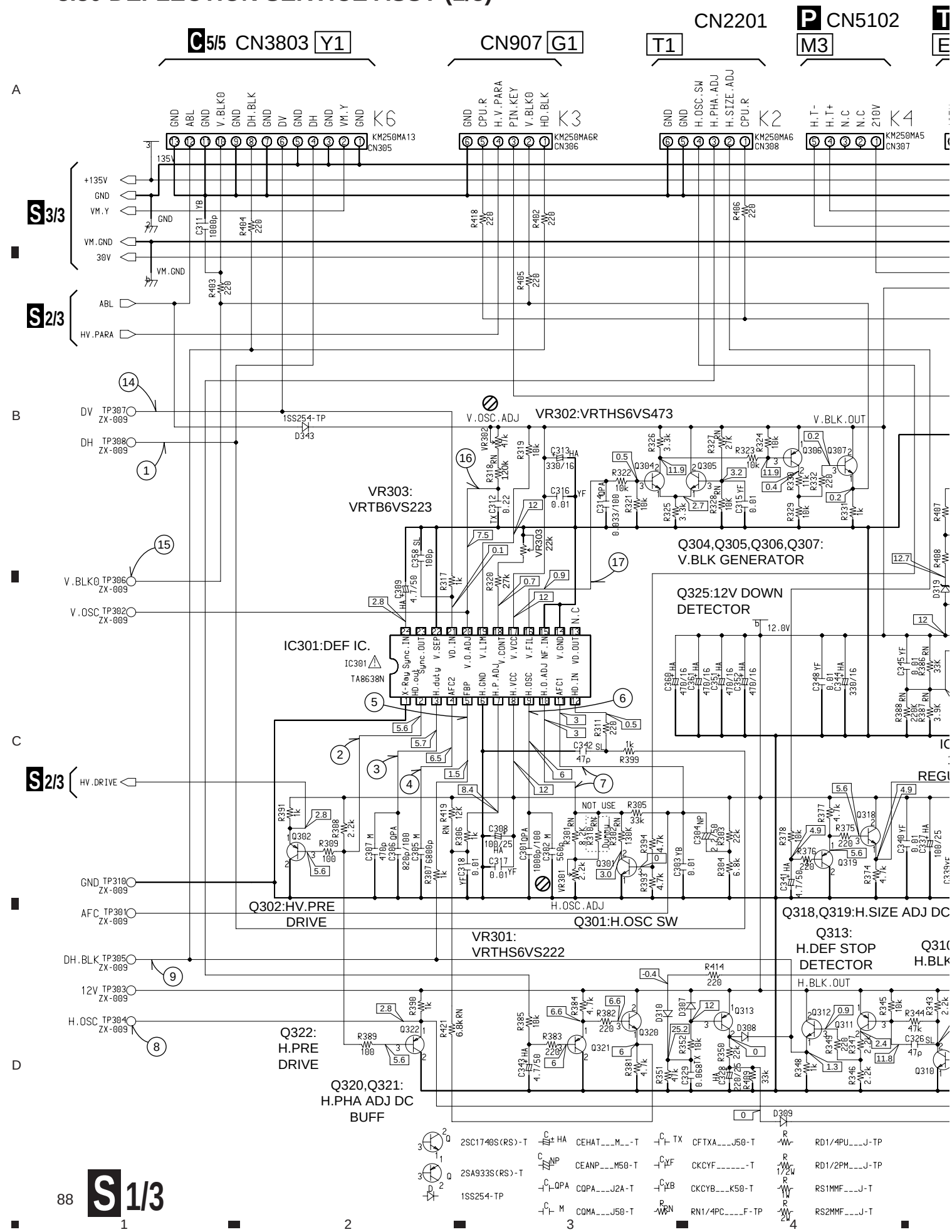






SIGNAL ROUTE
⇨ :R,G or B SIGNAL

3.30 DEFLECTION SERVICE ASSY (1/3)

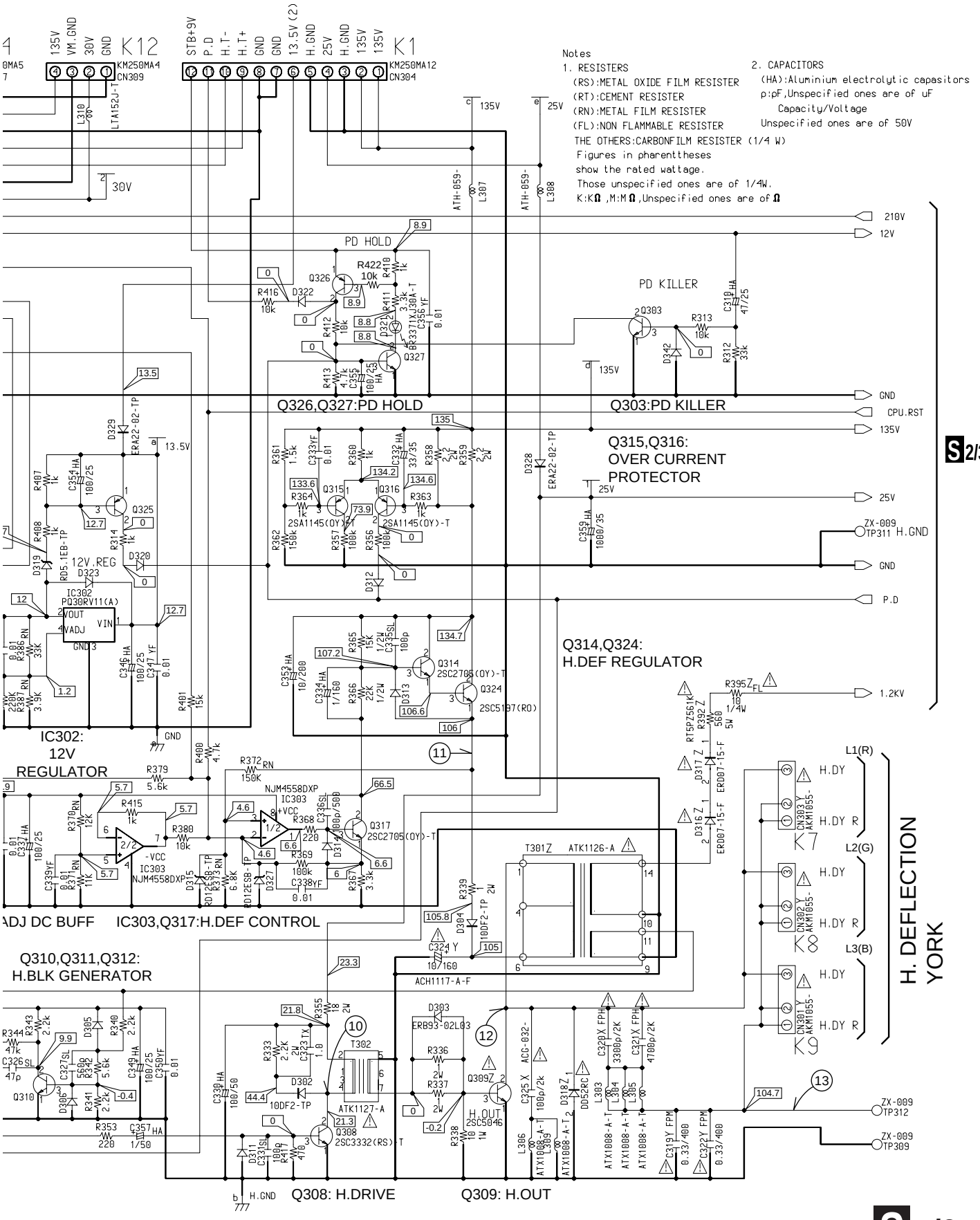


T CN205 E6

T CN203 E7

S DEFLECTION SERVICE ASSY(1/3) (AWV1731)

• H. DEF BLOCK

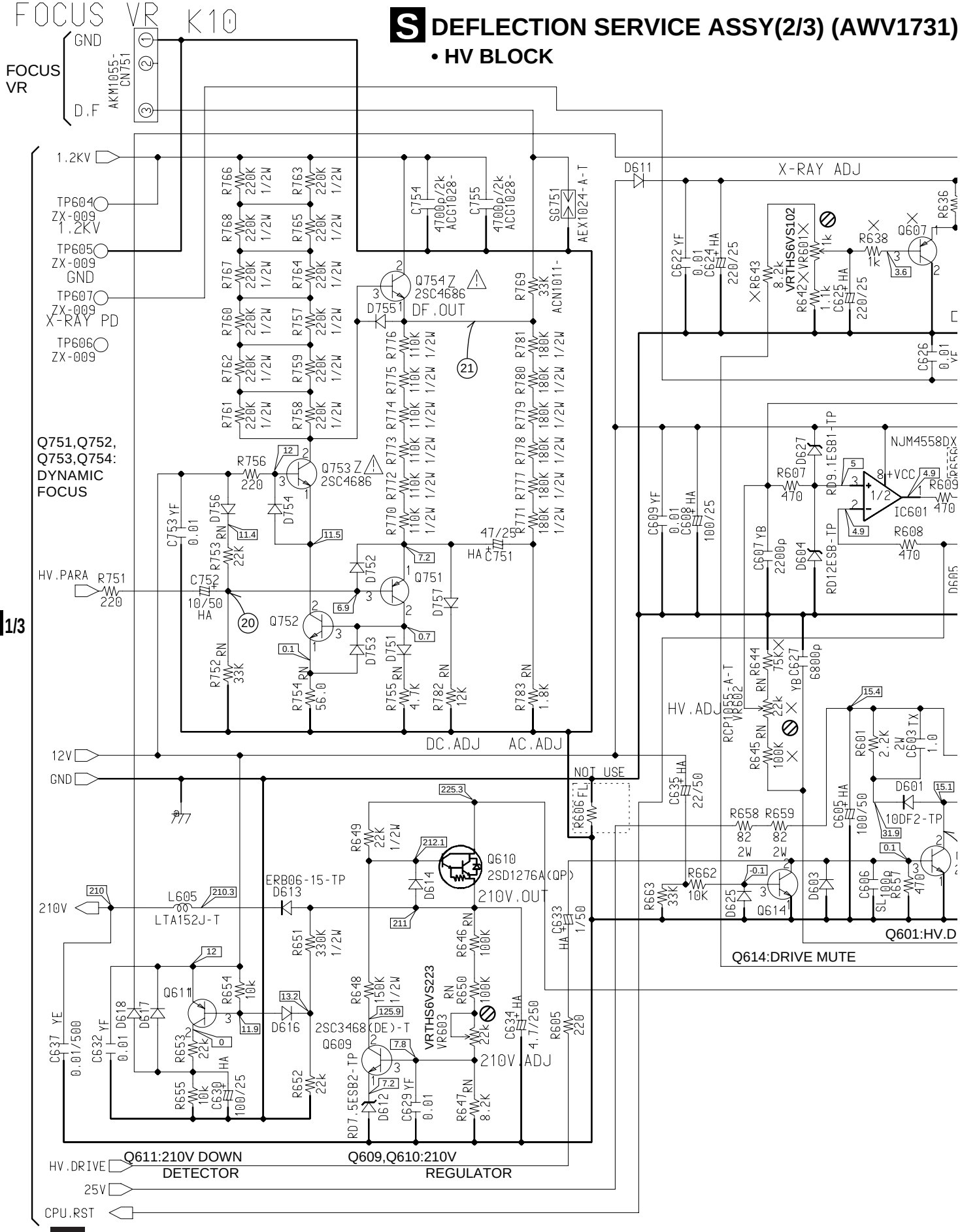


S 2/3

S 1/3

S DEFLECTION SERVICE ASSY(2/3) (AWV1731)

• HV BLOCK



S 1/3

S 2/3

.731)

Q	2SC1740S(RS)-T	C HA	CEHAT___M__-T	C TX	CFTXA___J50-T	R	RD1/4PU___J-TP
Q	2SA933S(RS)-T	C NP	CEANP___M50-T	C YF	CKCYF_____-T	R 1/2W	RD1/2PM___J-TP
D	1SS254-TP	C QPA	CQPA___J2A-T	C YB	CKCYB___K50-T	R 1W	RS1MMF___J-T
		C M	CQMA___J50-T	R RN	RN1/4PC____F-TP	R 2W	RS2MMF___J-T

Q607,Q608:
X-RAY DETECTOR

Not use

Q604
Q605:OVER CURRENT
PROTECTOR

135V

H.GND

P.D

S 1/3

IC601,Q602,Q603:HV.CONTROL

Not use

ZX-009
TP602
HV.DETECT

ZX-009
TP603 H.GND

Q606,Q613:
HV.REGURATOR

Q612:
HV:OUT

01:HV.DRIVE

HV.CR
BLOCK

CR BLOCK
AXW1047-A

FOCUS
VR

FOCUS
VR(VR1)

J602
ADX2486
K11

HV.C.GND
RETURN GND
HV.RETURN

CR BLOCK

HV.CR
BLOCK

R661
27
ACN1136-A-TP

CRT STAND

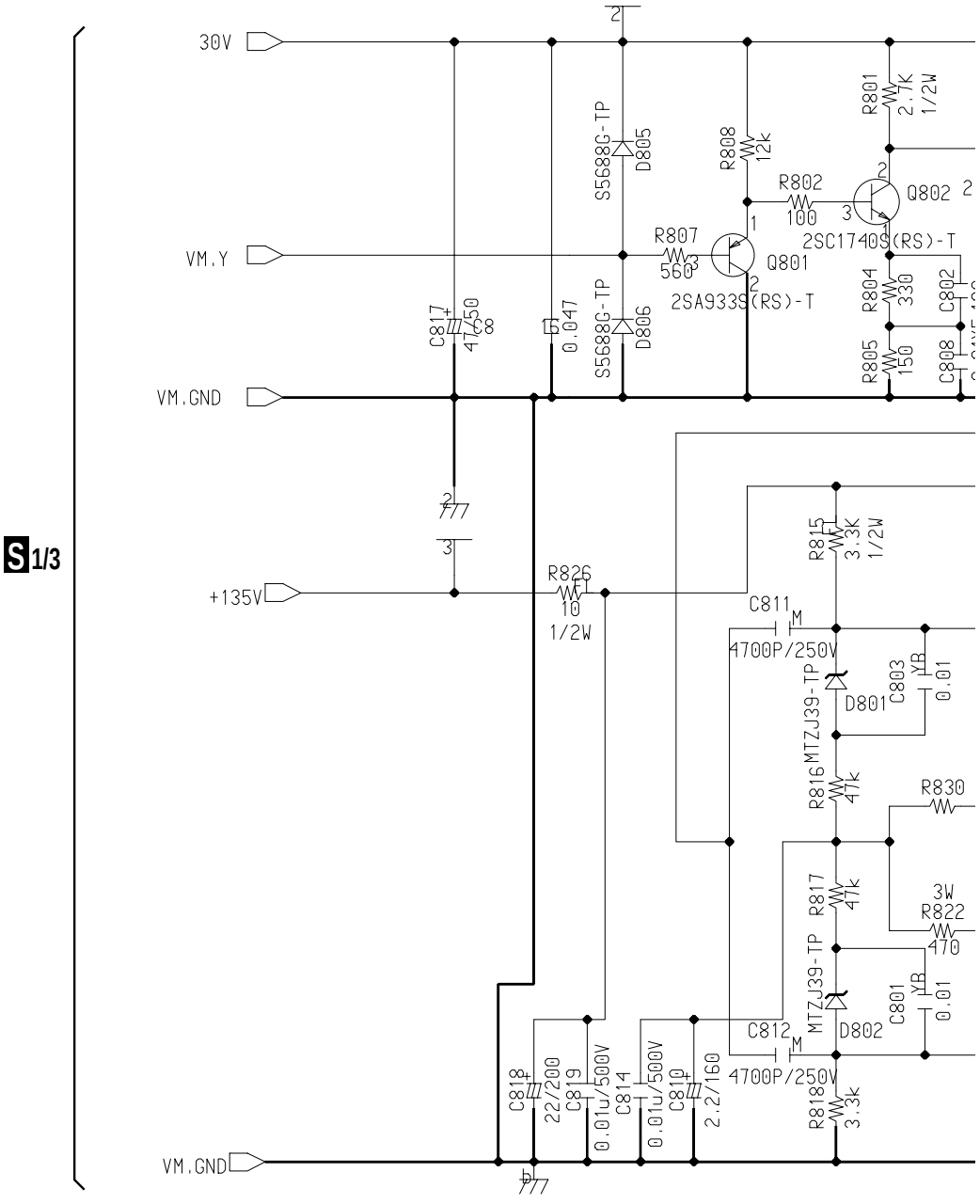
ABL

S 1/3

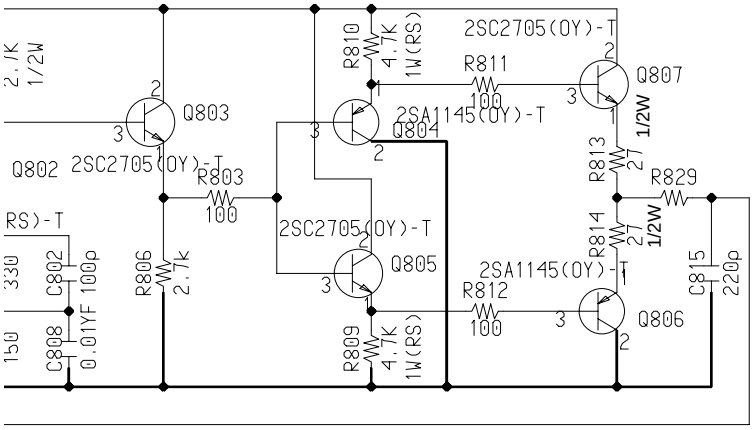
3.32 DEFLECTION SERVICE ASSY (3/3)

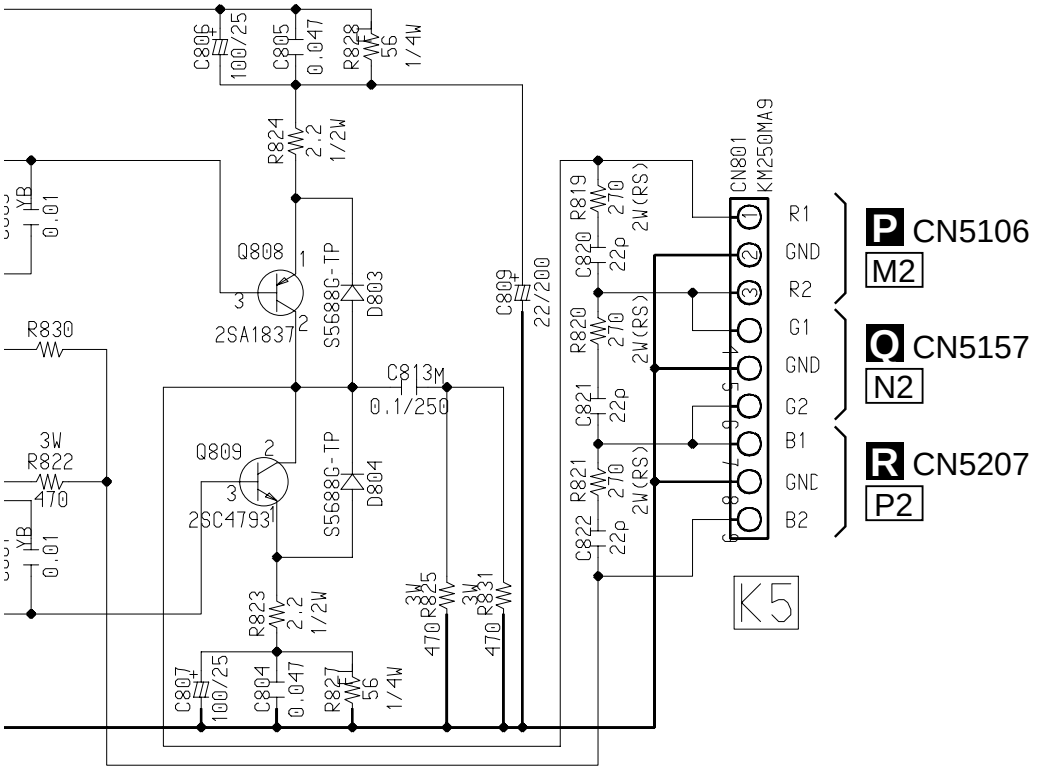
S DEFLECTION SERVICE ASSY(3/3) (AWV1731)

• VM BLOCK

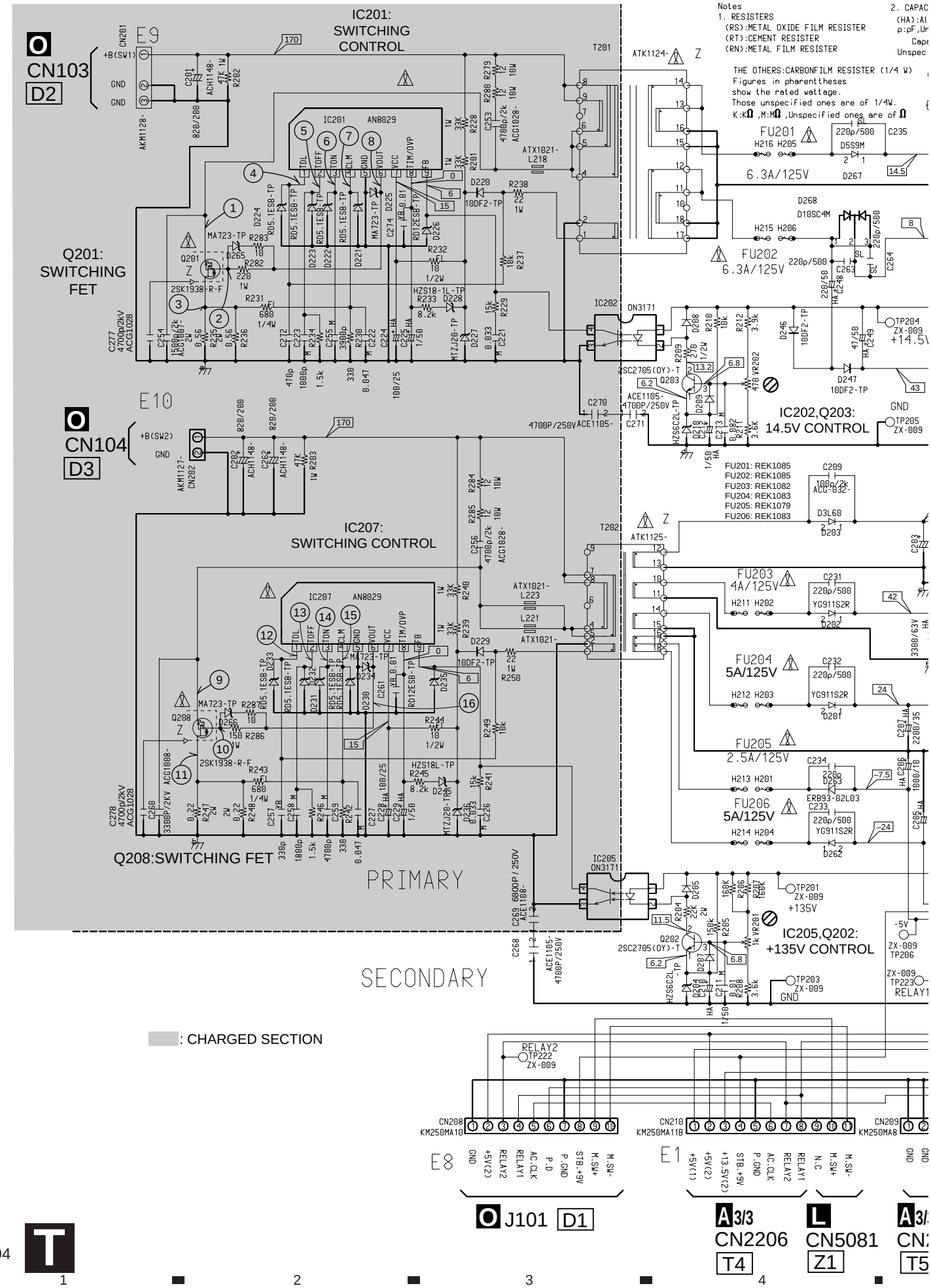


L)


Q803
Q802 2SC2705(OY)-T
R803
100
R806
2.7k
C802
100p
C808
0.01YF
R810
4.7K
1W(RS)
2SC2705(OY)-T
R811
100
Q807
1/2W
2SA1145(OY)-T
Q804
R813
27
R829
2SC2705(OY)-T
Q805
R814
27
1/2W
2SA1145(OY)-T
R812
100
Q806
C815
220p
R809
4.7K
1W(RS)


C806
100/25
C805
0.047
R828
56
1/4W
R824
2.2
1/2W
Q808
2SA1837
S5688G-TP
D803
C809
22/200
R830
C813M
0.1/250
Q809
2SC4793
S5688G-TP
D804
3W
R822
470
R823
2.2
1/2W
C807
100/25
C804
0.047
R827
56
1/4W
3W
R825
470
3W
R831
470
R819
270
2W(RS)
C820
22p
R820
270
2W(RS)
C821
22p
R821
270
2W(RS)
C822
22p
CN801
KM250MA9
R1
GND
R2
G1
GND
G2
B1
GND
B2
P CN5106
M2
Q CN5157
N2
R CN5207
P2

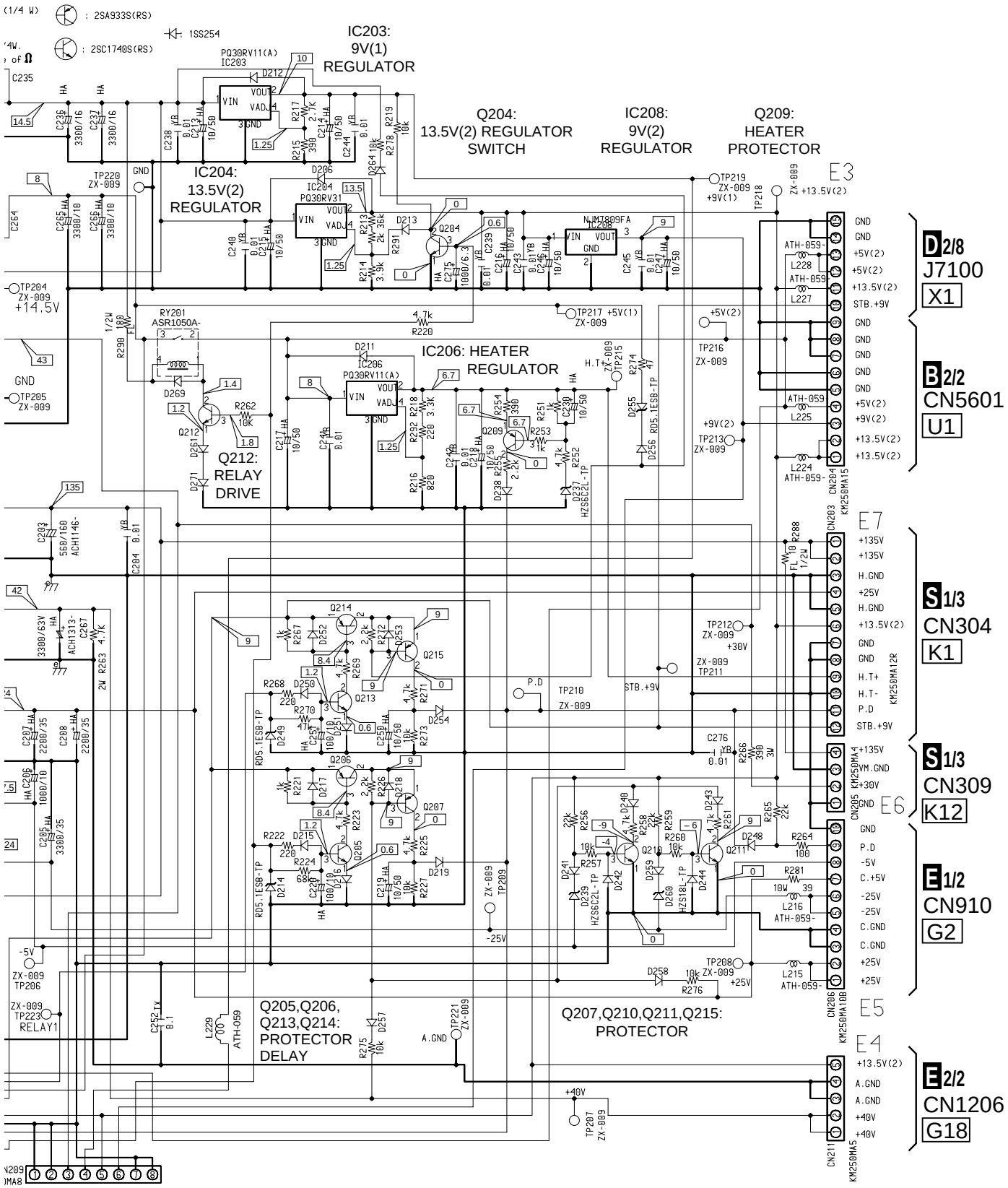
3.33 POWER SUPPLY ASSY



T POWER SUPPLY ASSY (AWV1710)

2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V

3. The ⚠ mark found on same component parts of indicates the importance of the safety factor of the parts. Therefore,when replacing,be sure to use parts of identical de-signation.



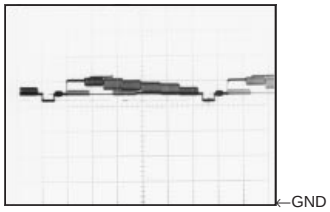
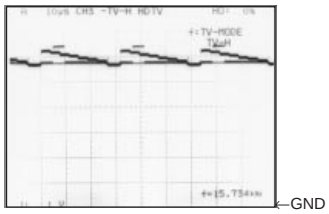
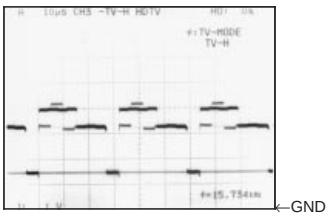
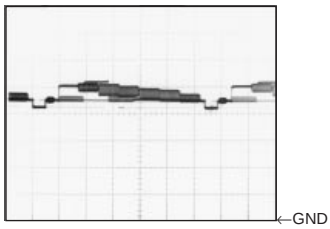
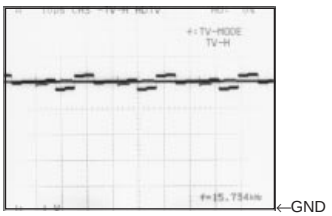
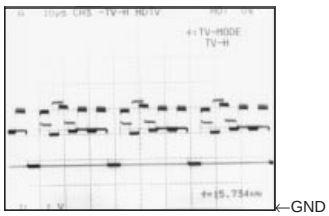
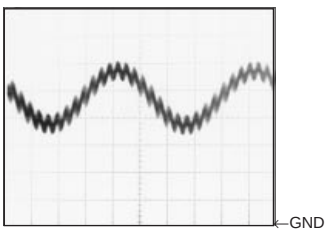
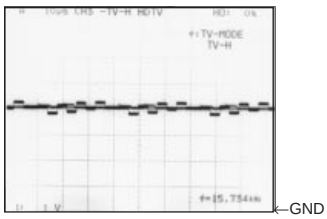
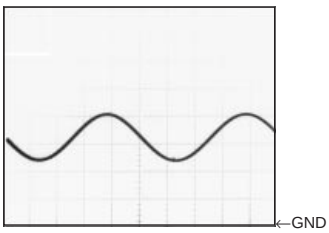
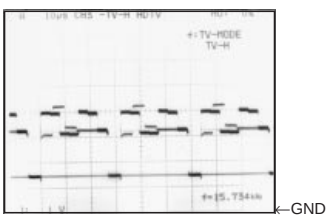
■ WAVEFORMS AND VOLTAGES

A TUNER u-COM ASSY

Input signal
Video signal: Color bar
Picture quality: Standard
Range: DC range (Unless otherwise noted)

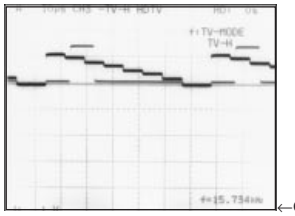
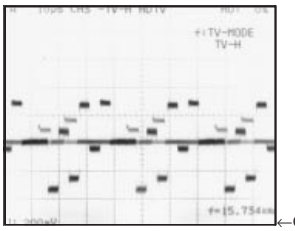
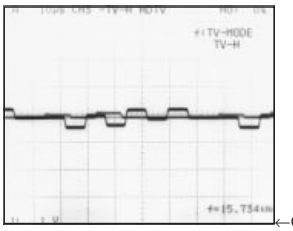
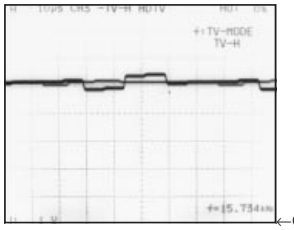
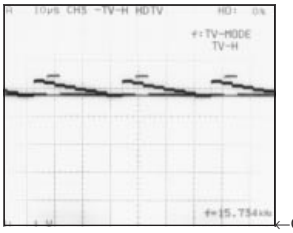
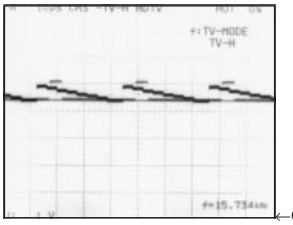
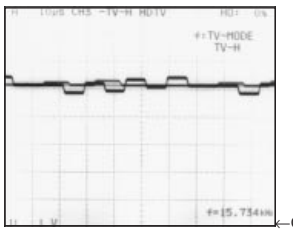
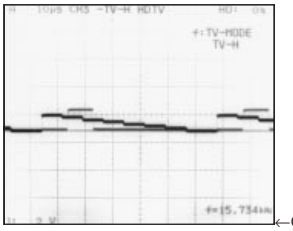
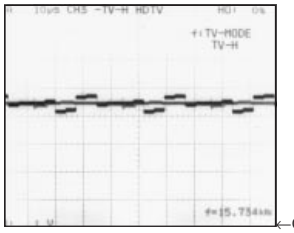
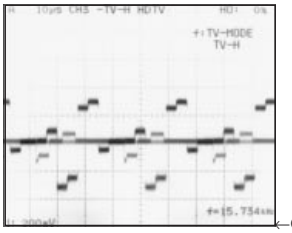
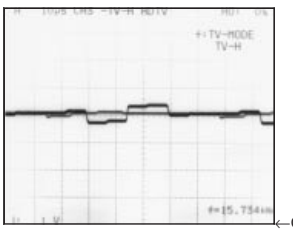
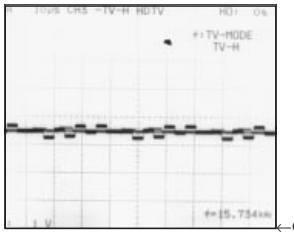
B VIDEO ASSY

Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① K2701-pin18 V : 1V/div H : 10µsec/div  	① Q5256 Emitfer V : 1V/div H : 10µsec/div  	⑤ P5253 V : 1V/div H : 10µsec/div 
② J2703-pin9 V :1V/div H : 10µsec/div  	② Q5254 Emitfer V : 1V/div H : 10µsec/div  	⑥ P5254 V : 1V/div H : 10µsec/div 
③ J2703-pin2,7 V : 1V/div H : 0.2msec/div  	③ Q5255 Emitfer V : 1V/div H : 10µsec/div  	
④ K2701-pin14 V : 1V/div H : 0.2msec/div  	④ P5252 V : 1V/div H : 10µsec/div  	

C SUB VIDEO ASSY

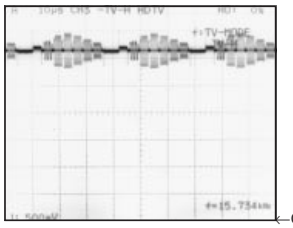
Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① K4001 (Y) V : 1V/div H : 10µsec/div  	⑤ K4705 (B-Y) V : 0.2V/div H : 10µsec/div  	⑨ K4203 (B-Y) V : 1V/div H : 10µsec/div 
② K4002 (R-Y) V : 1V/div H : 10µsec/div  	⑥ K4706 (Y) V : 1V/div H : 10µsec/div  	⑩ K4401 (Y) V : 1V/div H : 10µsec/div 
③ IK4003 (B-Y) V : 1V/div H : 10µsec/div  	⑦ K4201 (Y) V : 2V/div H : 10µsec/div  	⑪ K4402 (R-Y) V : 1V/div H : 10µsec/div 
④ K4704 (R-Y) V : 0.2V/div H : 10µsec/div  	⑧ K4202 (R-Y) V : 1V/div H : 10µsec/div  	⑫ K4403 (B-Y) V : 1V/div H : 10µsec/div 

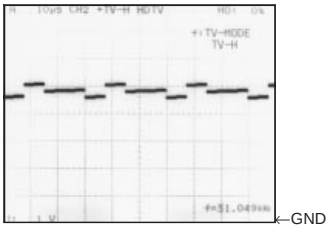
D SIGNAL ASSY

Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

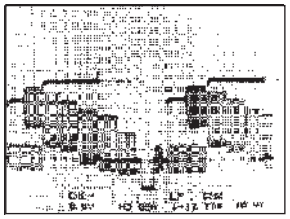
⑬ K4404 (VM-Y)
V : 0.5V/div H : 10µsec/div



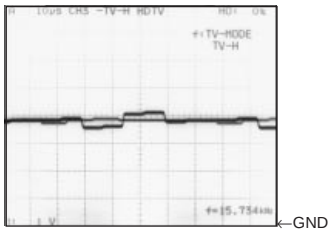
⑰ CN3802-pin38 (R-Y) *1
V : 1V/div H : 10µsec/div



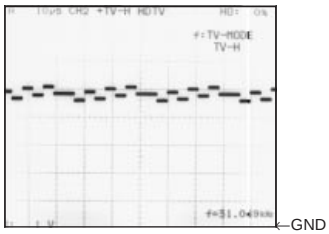
① J7001-pin6 (H)
V : 0.5V/div H : 10µsec/div



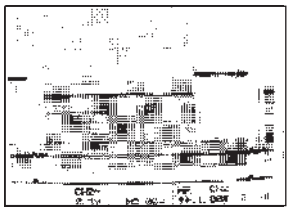
⑭ CN3801-pin36 (SR-Y)
V : 1V/div H : 10µsec/div



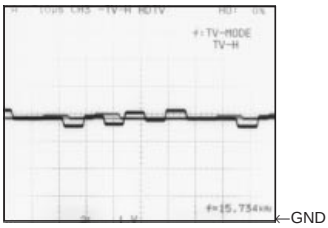
⑱ CN3802-pin39 (B-Y) *1
V : 1V/div H : 10µsec/div



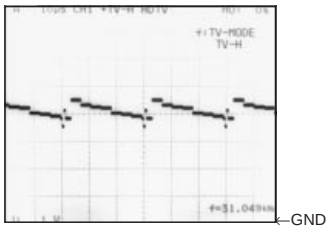
① J7001-pin6 (V)
V : 0.5V/div H : 2msec/div



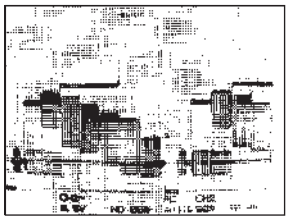
⑮ CN3801-pin37 (SB-Y)
V : 1V/div H : 10µsec/div



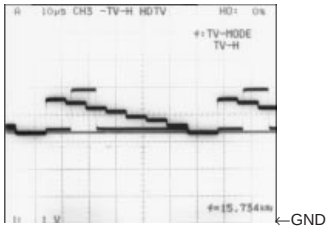
⑲ CN3802-pin40 (DV-Y) *1
V : 1V/div H : 10µsec/div



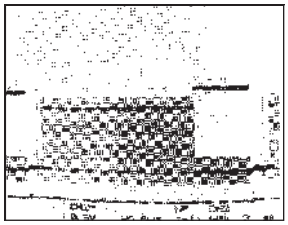
② J7001-pin2 (H)
V : 0.5V/div H : 10µsec/div



⑯ CN3801-pin38 (SY)
V : 1V/div H : 10µsec/div

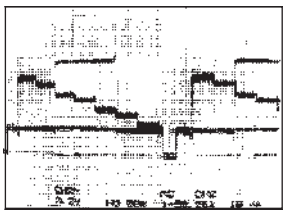


② J7001-pin2 (V)
V : 0.5V/div H : 2msec/div

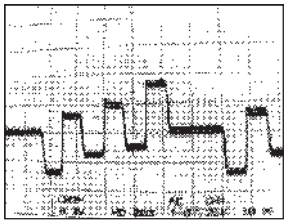


*1 INPUT SIGNAL
⑰~ ⑲: 33.75kHz, FULL COLOR BAR

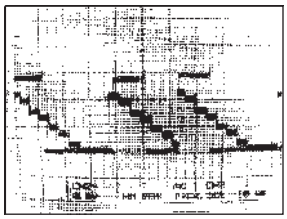
③ IC7001-pin1
V : 0.2V/div H : 10µsec/div



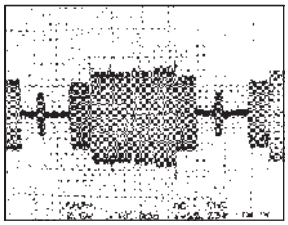
⑦ Q7105-Emitter
V : 0.2V/div H : 10µsec/div



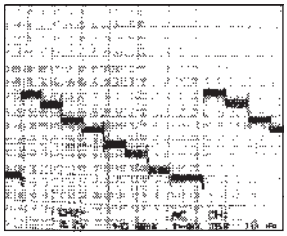
⑪ CN7800-pin10 (SY)(H)
V : 0.5V/div H : 10µsec/div



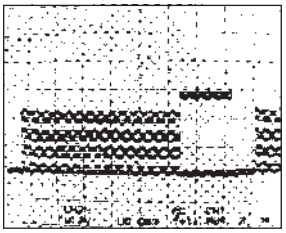
④ IC7001-pin7
V : 0.5V/div H : 10µsec/div



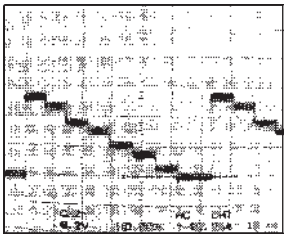
⑧ Q7309-Emitter
V : 0.2V/div H : 10µsec/div



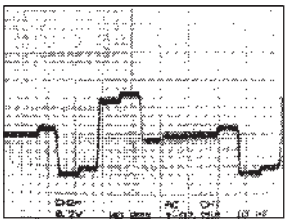
⑪ CN7800-pin10 (SY)(V)
V : 0.5V/div H : 2msec/div



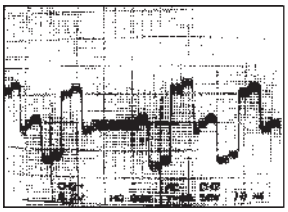
⑤ Q7118-Emitter
V : 0.2V/div H : 10µsec/div



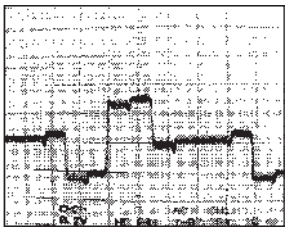
⑨ Q7304-Emitter
V : 0.2V/div H : 10µsec/div



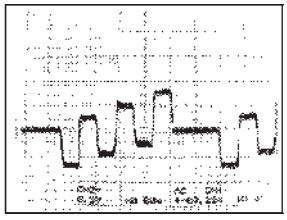
⑫ CN7800-pin8 (SR-Y)(H)
V : 0.2V/div H : 10µsec/div



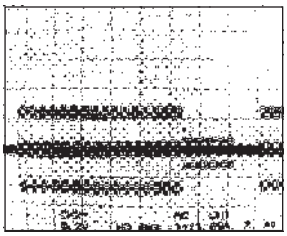
⑥ Q7106-Emitter
V : 0.2V/div H : 10µsec/div



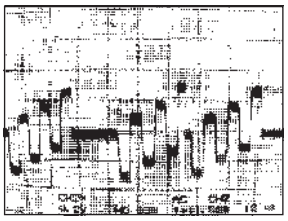
⑩ Q7303-Emitter
V : 0.2V/div H : 10µsec/div



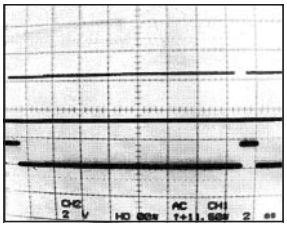
⑫ CN7800-pin8 (SR-Y)(V)
V : 0.5V/div H : 2msec/div



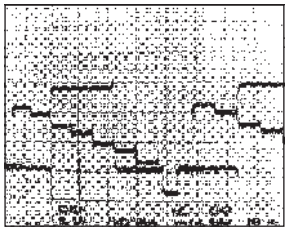
⑬ CN7800-pin9 (SB-Y)(H)
V : 0.2V/div H : 10µsec/div



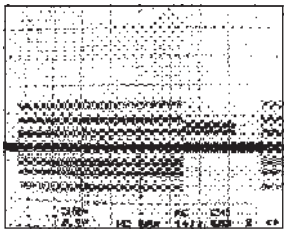
⑮ CN7800-pin14 (SCPO)(V)
V : 2V/div H : 2msec/div



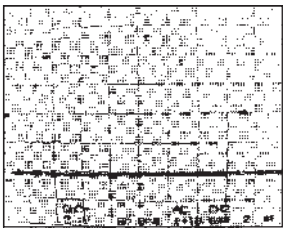
⑱ CN7600-pin16 (SCCY)(H)
V : 0.5V/div H : 10µsec/div



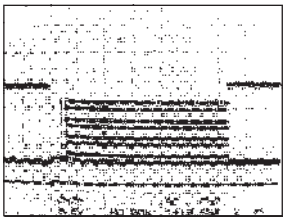
⑬ CN7800-pin9 (SB-Y)(V)
V : 0.2V/div H : 2msec/div



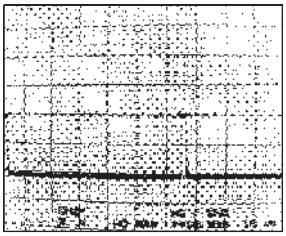
⑯ CN7800-pin13
V : 2V/div H : 2msec/div



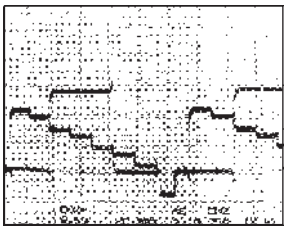
⑱ CN7600-pin16 (SCCY)(V)
V : 0.5V/div H : 2msec/div



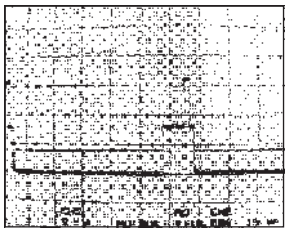
⑭ CN7800-pin15
V : 2V/div H : 10µsec/div



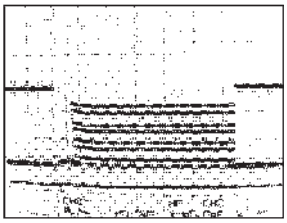
⑰ CN7600-pin18,40 (MCCY)(H)
V : 0.5V/div H : 10µsec/div



⑮ CN7800-pin14 (SCPO)(H)
V : 2V/div H : 10µsec/div

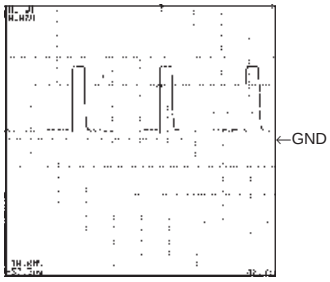
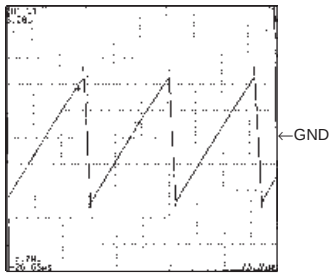
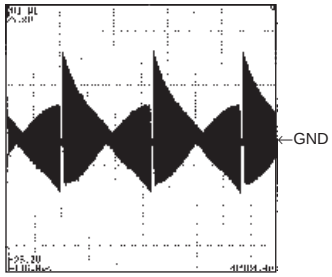
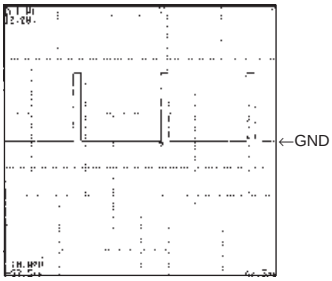
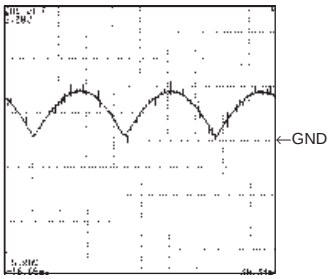
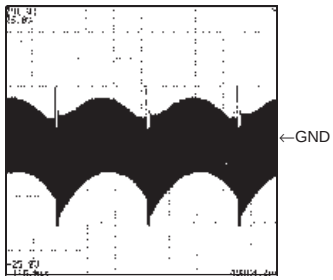
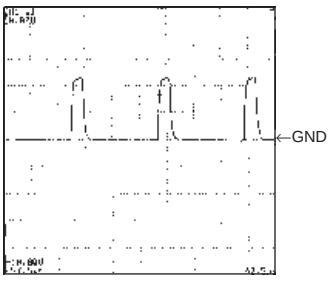
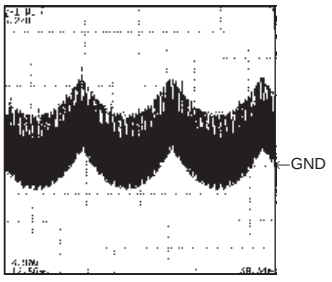
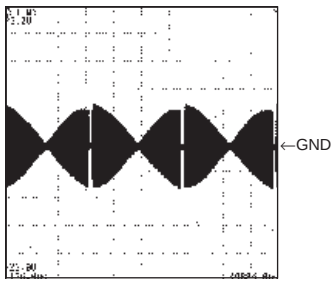
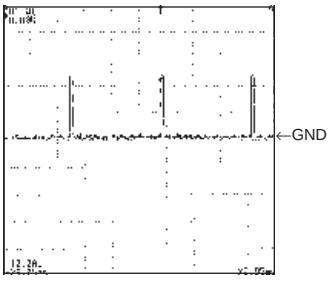
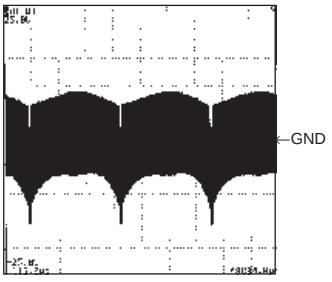
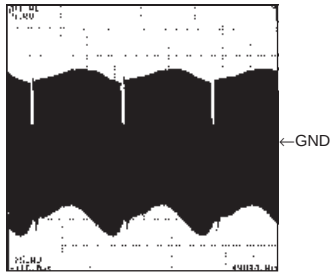


⑰ CN7600-pin18,40 (MCCY)(V)
V : 0.5V/div H : 2msec/div

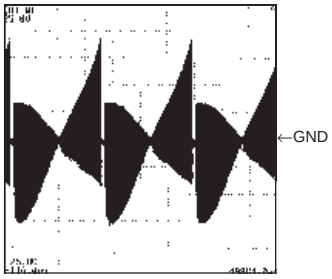


E AMP ASSY

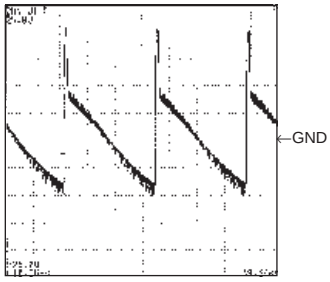
Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① IC911-pin4 V : 2V/div H : 10µsec/div 	⑤ C1011 V : 1V/div H : 10µsec/div 	⑨ IC904-pin20 V : 5V/div H : 5msec/div 
② IC913-pin10 V : 2V/div H : 10µsec/div 	⑥ R958 V : 1V/div H : 5msec/div 	⑩ IC904-pin22 V : 5V/div H : 5msec/div 
③ IC911-pin10 V : 2V/div H : 10µsec/div 	⑦ D934-Anode V : 1V/div H : 5msec/div 	⑪ IC904-pin21 V : 5V/div H : 5msec/div 
④ R1047 V : 2V/div H : 5msec/div 	⑧ IC903-pin22 V : 5V/div H : 5msec/div 	⑫ IC903-pin20 V : 5V/div H : 5msec/div 

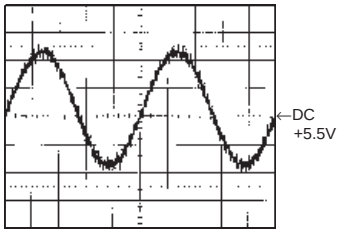
⑬ IC903-pin21
V : 5V/div H : 5msec/div



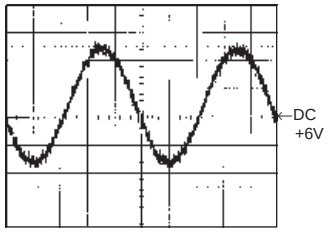
⑭ R902
V : 5V/div H : 5msec/div



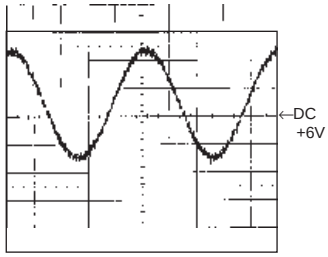
⑮ CN1201-pin4
V : 0.2V/div H : 0.2msec/div



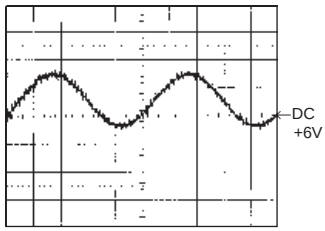
⑯ IC1204-pin22
V : 0.2V/div H : 0.2msec/div



⑰ IC1204-pin12
V : 0.2V/div H : 0.2msec/div

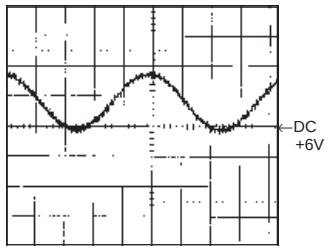


⑱ IC1201-pin26
V : 0.2V/div H : 0.2msec/div

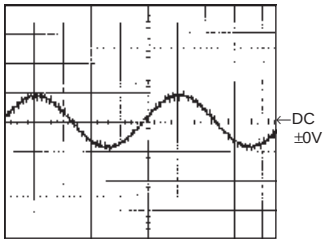


⑲ IC1201-pin14

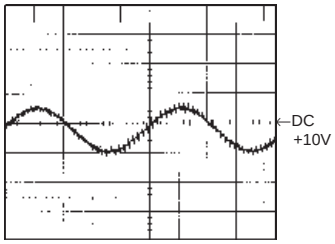
⑳ IC1201-pin17
V : 0.2V/div H : 0.2msec/div



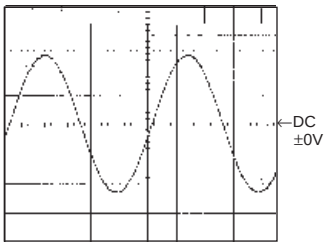
㉑ C1202 (–)
V : 0.2V/div H : 0.2msec/div



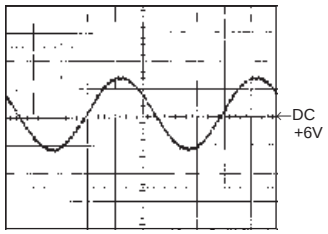
㉒ D1240-Anode
V : 0.2V/div H : 0.2msec/div



㉓ CN1202-pin5
V : 5V/div H : 0.2msec/div

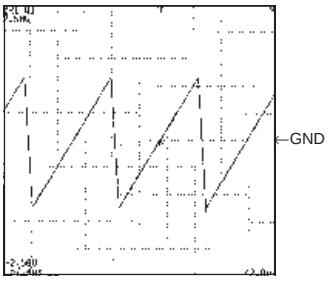
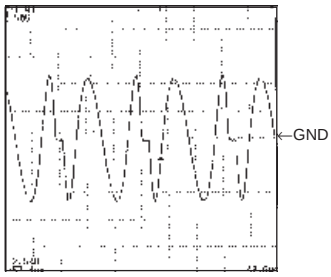
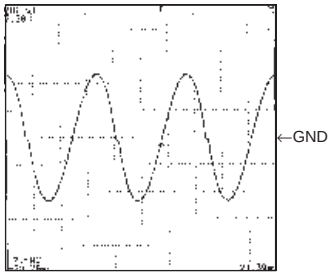
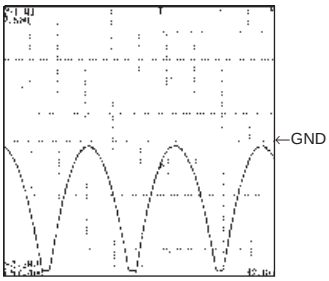
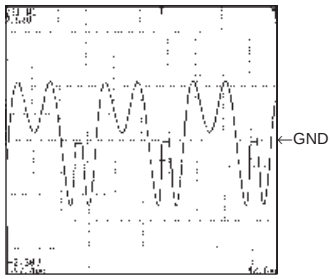
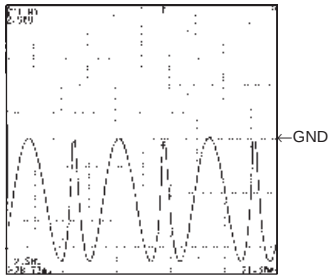
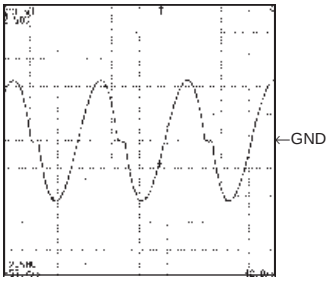
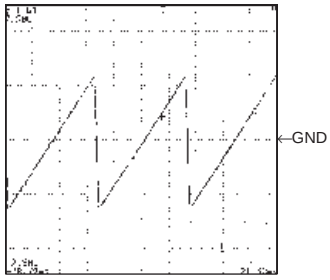
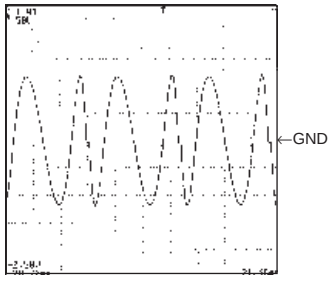
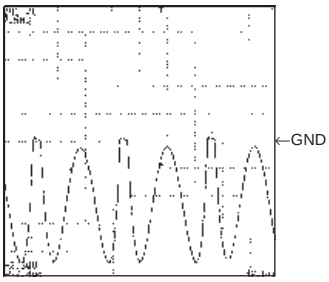
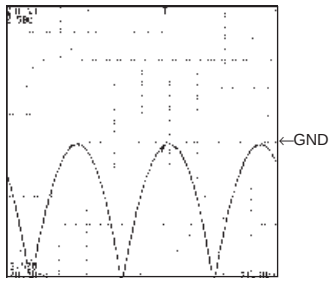
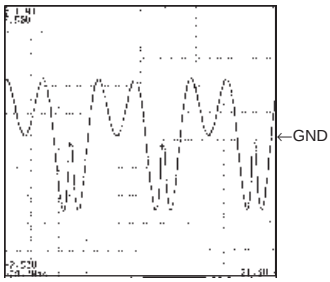


㉔ D1210- Cathode
V : 1.5V/div H : 0.2msec/div



F CONVER.DAC ASSY

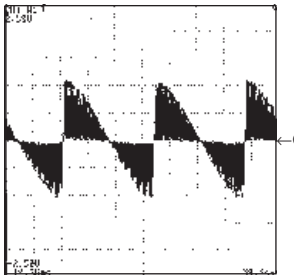
Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① IC1401-pin4 V : 0.5V/div H : 10µsec/div 	⑤ CI1401-pin8 V : 0.5V/div H : 10µsec/div 	⑨ IC1402-pin6 V : 0.5V/div H : 5msec/div 
② IC1401-pin5 V : 0.5V/div H : 10µsec/div 	⑥ IC1401-pin10 V : 0.5V/div H : 10µsec/div 	⑩ IC1402-pin7 V : 0.5V/div H : 5msec/div 
③ IC1401-pin6 V : 0.5V/div H : 10µsec/div 	⑦ IC1402-pin4 V : 0.5V/div H : 5msec/div 	⑪ IC1402-pin8 V : 0.5V/div H : 5msec/div 
④ IC1401-pin7 V : 0.5V/div H : 10µsec/div 	⑧ IC1402-pin5 V : 0.5V/div H : 5msec/div 	⑫ IC1402-pin10 V : 0.5V/div H : 5msec/div 

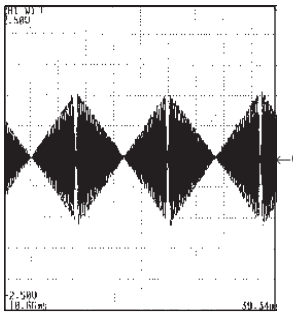
N AV I/O ASSY

Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

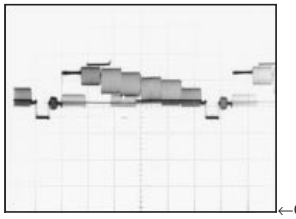
⑬ IC1411-pin24
V : 0.5V/div H : 5msec/div



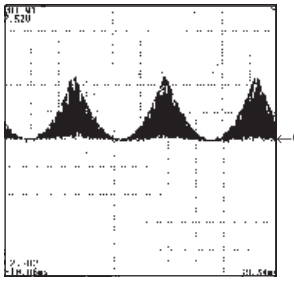
⑰ IC1409-pin24
V : 0.5V/div H : 5msec/div



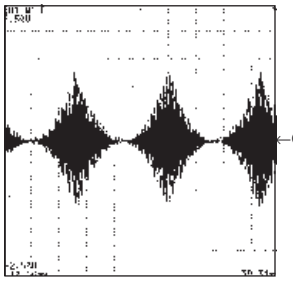
① CN6003-pin6
V : 1V/div H : 10µsec/div



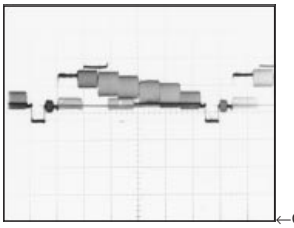
⑭ IC1412-pin24
V : 0.5V/div H : 5msec/div



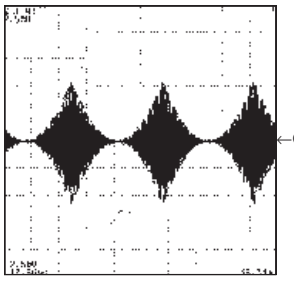
⑱ IC1408-pin24
V : 0.5V/div H : 5msec/div



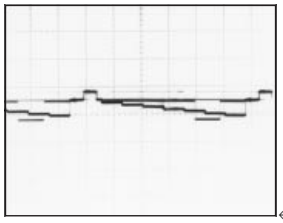
② CN6003-pin2
V : 1V/div H : 10µsec/div



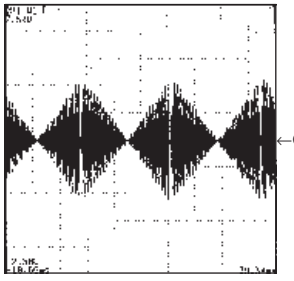
⑮ IC1403-pin24
V : 0.5V/div H : 5msec/div



③ CN6201-pin3
V : 1V/div H : 10µsec/div



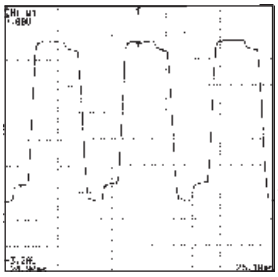
⑯ IC1410-pin24
V : 0.5V/div H : 5msec/div



O AC IN ASSY

Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① J101-pin5 (AC, CLK)
V : 1V/div H : 5µsec/div

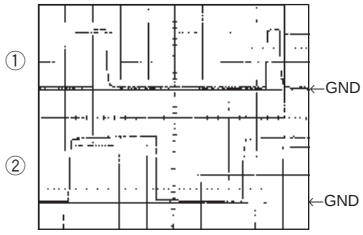


S DEFLECTION SERVICE ASSY

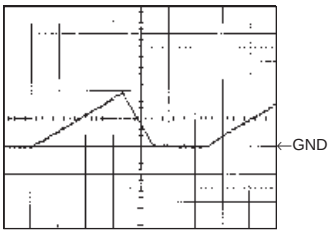
Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

① TP308 (DH)
V : 2V/div H : 5µsec/div

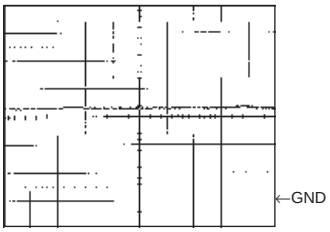
② IC301-pin2
V : 5V/div H : 5µsec/div



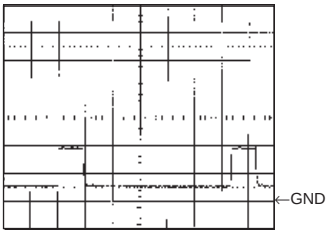
③ IC301-pin3
V : 2V/div H : 5µsec/div



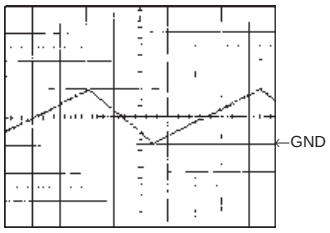
④ IC301-pin4
V : 2V/div H : 5µsec/div



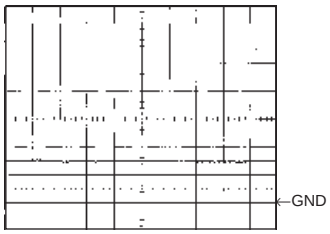
⑤ IC301-pin5
V : 2V/div H : 5µsec/div



⑥ IC301-pin9
V : 2V/div H : 5µsec/div

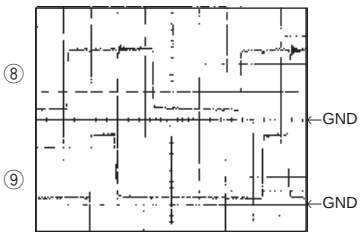


⑦ IC301-pin10
V : 2V/div H : 5µsec/div

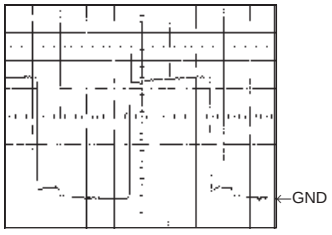


⑧ TP304 (H.OSC)
V : 2V/div H : 5µsec/div

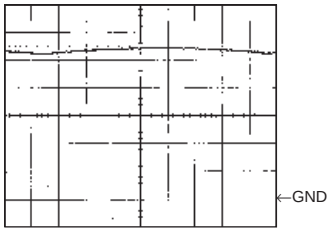
⑨ TP305 (DH.BLK)
V : 2V/div H : 5µsec/div



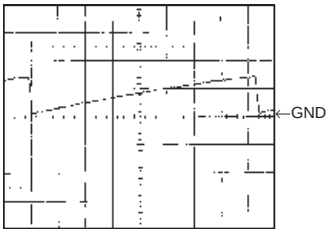
⑩ Q308-Collector
V : 10V/div H : 5µsec/div



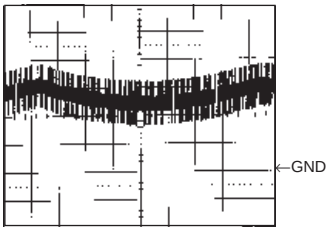
⑪ Q324-Emitter
V : 20V/div H : 2msec/div



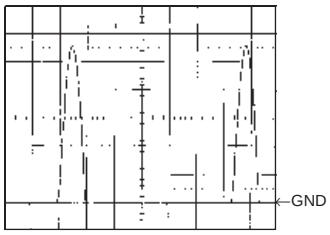
⑯ IC301-pin20
V : 2V/div H : 2msec/div



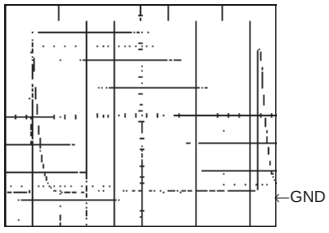
⑳ Q751-Base
V : 2V/div H : 2msec/div



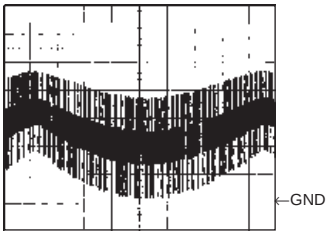
⑫ Q309 Collector
V : 200Vdiv H : 5µsec/div



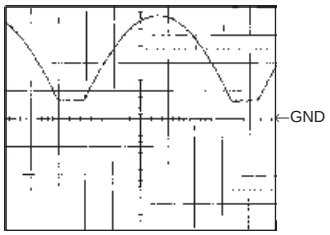
⑰ IC301-pin16
V : 2V/div H : 2msec/div



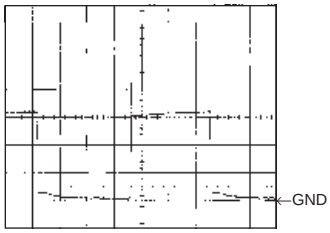
㉑ Q754-Emitter
V : 200V/div H : 2msec/div



⑬ TP312
V : 20V/div H : 5µsec/div

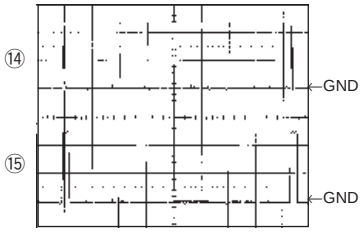


⑱ Q601-Collector
V : 10V/div H : 5µsec/div

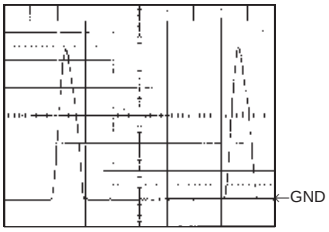


⑭ TP307 (DV)
V : 2V/div H : 2msec/div

⑮ TP306 (V. BLKO)
V : 2V/div H : 2msec/div



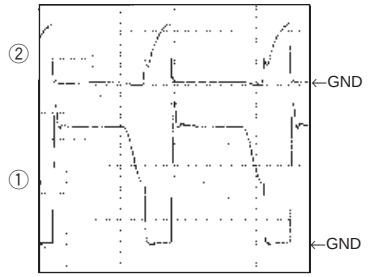
⑲ Q612-Collector
V : 200V/div H : 5µsec/div



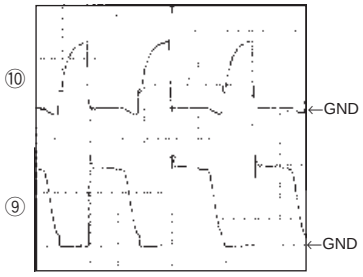
T POWER SUPPLY ASSY

Input signal
Video signal: Color bar (NTSC, EIA)
Picture quality: Standard
Range: DC range (Unless otherwise noted)

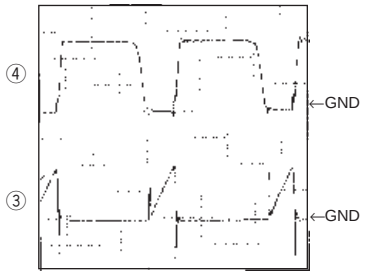
① Q201 Drain
V : 50V/div H : 5µsec/div
② Q201 Gate
V : 5V/div H : 5µsec/div



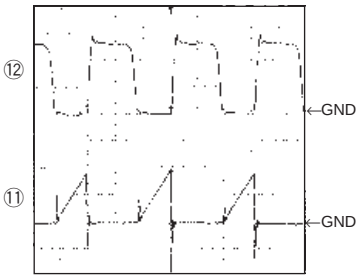
⑨ Q208 Drain
V : 100V/div H : 5µsec/div
⑩ Q208 Gate
V : 5V/div H : 5µsec/div



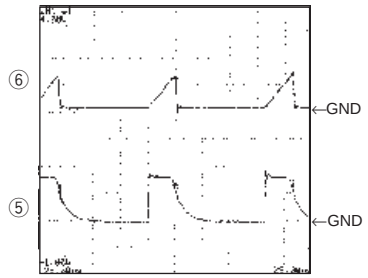
③ Q201 Source
V : 0.5V/div H : 5µsec/div
④ IC201-pin1
V : 1V/div H : 5µsec/div



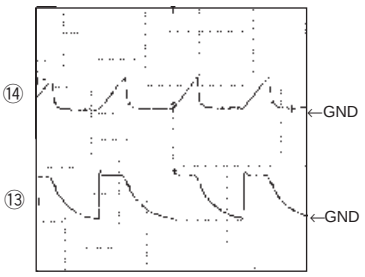
⑪ Q208 Source
V : 0.5V/div H : 5µsec/div
⑫ IC207-pin1
V : 1V/div H : 5µsec/div



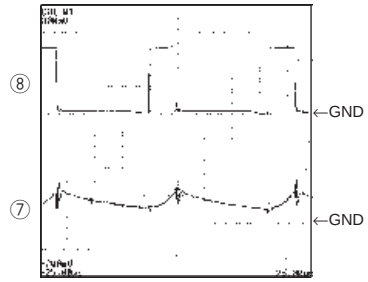
⑤ IC201-PIN2
V : 0.5V/div H : 5µsec/div
⑥ IC201-pin3
V : 0.5V/div H : 5µsec/div



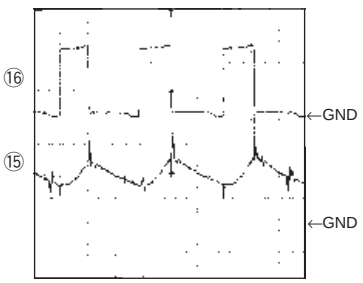
⑬ IC207-pin2
V : 0.5V/div H : 5µsec/div
⑭ IC207-pin3
V : 0.5V/div H : 5µsec/div



⑦ IC201-pin4
V : 0.1V/div H : 5µsec/div
⑧ IC201-pin6
V : 5V/div H : 5µsec/div



⑮ IC207-pin4
V : 50mV/div H : 5µsec/div
⑯ IC207-pin6
V : 5V/div H : 5µsec/div



A3/3 TUNER u-COM ASSY (3/3)

IC2201 (PD5462B9)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	P:0, S:50	21	5.0	41	5.0	61	0
2	0	22	0	42	4.8	62	0
3	3.3	23	5.0	43	0.6	63	0
4	3.1	24	5.0	44	0.6	64	0
5	5.0	25	5.0	45	0	65	0
6	5.0	26	0	46	5.0	66	4.8
7	0.5	27	5.0	47	5.0	67	0
8	5.0	28	0	48	0	68	0
9	5.0	29	0	49	4.9	69	0
10	5.0	30	2.1	50	4.9	70	0
11	5.0	31	2.1	51	4.9	71	0
12	5.0	32	0	52	4.9	72	0
13	5.0	33	5.0	53	4.2	73	5.0
14	2.5	34	0	54	4.2	74	5.0
15	3.1	35	0	55	4.2	75	0
16	0.2	36	0	56	0	76	5.0
17	0	37	3.0	57	0	77	0
18	0	38	0	58	5.0	78	0
19	0	39	0	59	5.0	79	0.3
20	5.0	40	5.0	60	0	80	0.3

IC2202 (PD5463B9)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	1.1	14	5.0	27	5.0	40	5.0
2	0.2	15	0.8	28	5.0	41	0
3	P:0,S:5.0	16	5.0	29	5.0	42	5.0
4	4.8	17	5.0	30	5.0	43	5.0
5	4.6	18	5.0	31	0	44	5.0
6	0	19	0.1	32	0	45	10.5
7	5.0	20	0	33	0	46	0
8	0	21	0.2	34	5.0	47	0
9	0.8	22	0.5	35	5.0	48	0
10	0.8	23	0	36	5.0	49	0
11	0.7	24	2.3	37	5.0	50	0
12	0.6	25	2.3	38	5.0	51	0
13	2.0	26	0	39	5.0	52	0

NOTE:
P (PIONEER) : AWV1715
S (SHARP) : AWV1723

IC2203 (PD5497B9)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	1.1	14	0	27	5.0	40	0
2	0.2	15	0	28	2.3	41	0
3	P:0,S:5.0	16	0	29	2.3	42	0
4	0	17	0	30	5.0	43	0
5	0	18	5.0	31	0	44	0
6	0	19	0.1	32	0	45	0
7	0	20	0	33	0	46	0
8	0	21	0.2	34	0	47	0
9	0	22	0.5	35	0	48	0
10	0	23	0	36	0	49	0
11	0	24	2.4	37	4.9	50	0
12	0	25	2.4	38	0	51	0
13	0	26	0	39	4.9	52	0

F CONVER.DAC ASSY

IC1401 (PA0053B)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0.4	10	0.1
2	1.3	11	0.3
3	5.0	12	–0.9
4	0	13	0.3
5	–0.9	14	1.2
6	0	15	0
7	–1.0	16	–1.8
8	0	17	1.2
9	–5.0	18	–1.2

IC1402 (PA0053B)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0.5	10	0
2	1.2	11	0.4
3	5.0	12	–0.9
4	0	13	0.3
5	–0.9	14	1.2
6	0	15	0
7	–1.0	16	–0.8
8	0	17	1.2
9	–5.0	18	–1.6

IC1403 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	–0.4
2	–0.9	23	0
3	0	24	0
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	–5.0	28	0
8	5.0	29	0
9	–5.0	30	–0.3
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.1	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0
18	–1.1	39	0
19	0	40	0.4
20	0	41	0
21	5.0	42	0

IC1404 (MC14066BF)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	–5.0	8	0
2	–5.0	9	0
3	0	10	0
4	–0.9	11	0
5	0	12	0
6	0	13	4.3
7	–5.0	14	5.0

IC1405 (MC14052BF)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	9	5.0
2	0	10	5.0
3	0	11	0
4	0	12	0
5	0	13	0
6	0	14	0
7	–5.0	15	0
8	0	16	5.0

IC1406 (MC14052BF)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	9	5.0
2	–1.0	10	5.0
3	0	11	0
4	0	12	0
5	–1.0	13	0
6	0	14	0
7	–5.0	15	0
8	0	16	5.0

IC1408 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	–0.4
2	–0.9	23	0
3	0	24	0
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	–0.5	28	0
8	0	29	0
9	–5.0	30	0.7
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.0	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0
18	–1.1	39	0
19	0	40	0
20	0	41	–0.2
21	5.0	42	0

IC1409 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	0
2	–0.9	23	0
3	0	24	0
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	0	28	0
8	0	29	0
9	–5.0	30	0.4
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.0	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0.2
18	–1.1	39	0
19	0	40	0
20	0	41	0.3
21	5.0	42	0

IC1410 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	0
2	–0.9	23	0
3	0	24	0
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	5.0	28	0
8	0	29	0
9	–5.0	30	0.5
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.0	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0
18	–1.1	39	0
19	0	40	0
20	0	41	–1.1
21	5.0	42	0

IC1411 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	0
2	–0.9	23	–0.5
3	0	24	0
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	5.0	28	0
8	5.0	29	0
9	–5.0	30	–0.7
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.1	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0
18	–1.1	39	0
19	0	40	0
20	0	41	–0.5
21	5.0	42	0

IC1412 (PM0011AS)

Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	0	22	–0.4
2	–0.9	23	–0.5
3	0	24	0.2
4	–1.0	25	0
5	0	26	0
6	0	27	0
7	0	28	0
8	5.0	29	0
9	–5.0	30	–0.5
10	5.0	31	5.0
11	5.0	32	5.0
12	5.0	33	5.0
13	5.0	34	5.0
14	–2.1	35	–5.0
15	0	36	0
16	–0.8	37	0
17	0	38	0
18	–1.1	39	0
19	0	40	0.1
20	0	41	0.2
21	5.0	42	0

N 1/3 AV I/O ASSY (1/3)

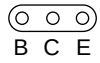
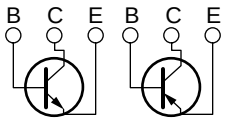
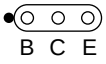
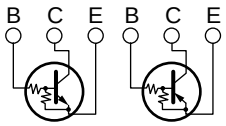
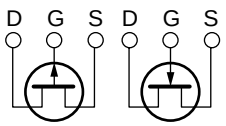
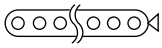
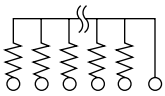
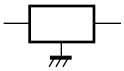
IC6001 (CXA2069Q)

Pin No.	Voltage [V]	Pin No.	Voltage [V]	Pin No.	Voltage [V]
1	4	21	-	41	3.9
2	4.5	22	4	42	8.8
3	4	23	4.5	43	4.5
4	4.5	24	4	44	3.8
5	4.5	25	4.5	45	4.5
6	-	26	4.5	46	-
7	-	27	-	47	4.5
8	4	28	-	48	-
9	4.5	29	4.5	49	4
10	4	30	4	50	4.5
11	4.5	31	4.5	51	4.5
12	4.5	32	-	52	4.5
13	-	33	-	53	3.9
14	-	34	-	54	4.5
15	4	35	0	55	-
16	4.5	36	-	56	3.3
17	4	37	4.5	57	0
18	4.5	38	4.5	58	4.5
19	4.5	39	3.8	59	4.5
20	-	40	4.5	60	4

4. PCB CONNECTION DIAGRAM

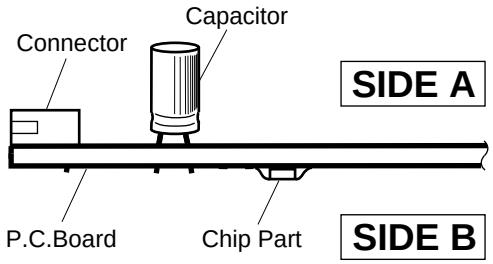
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

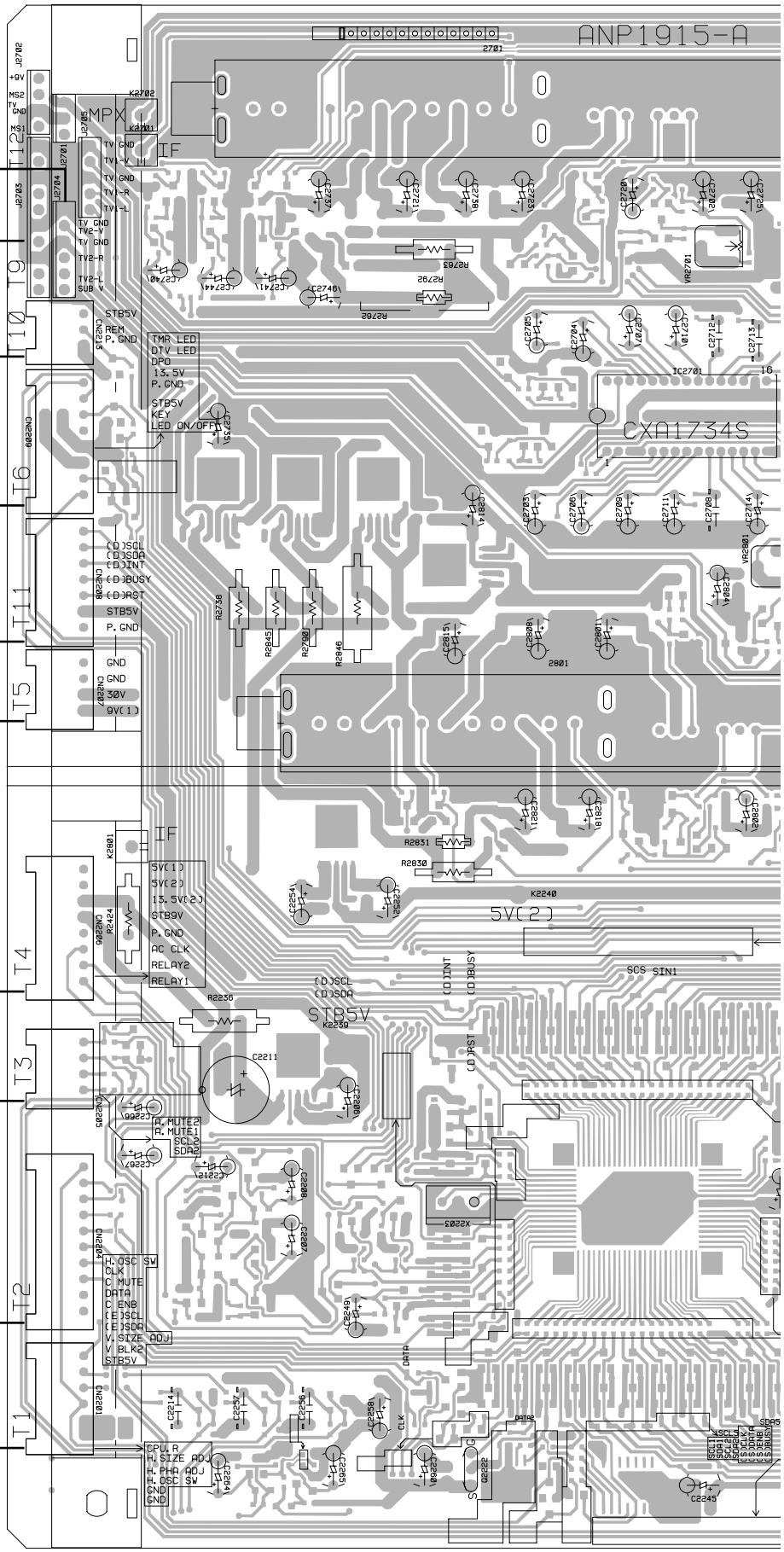
3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams

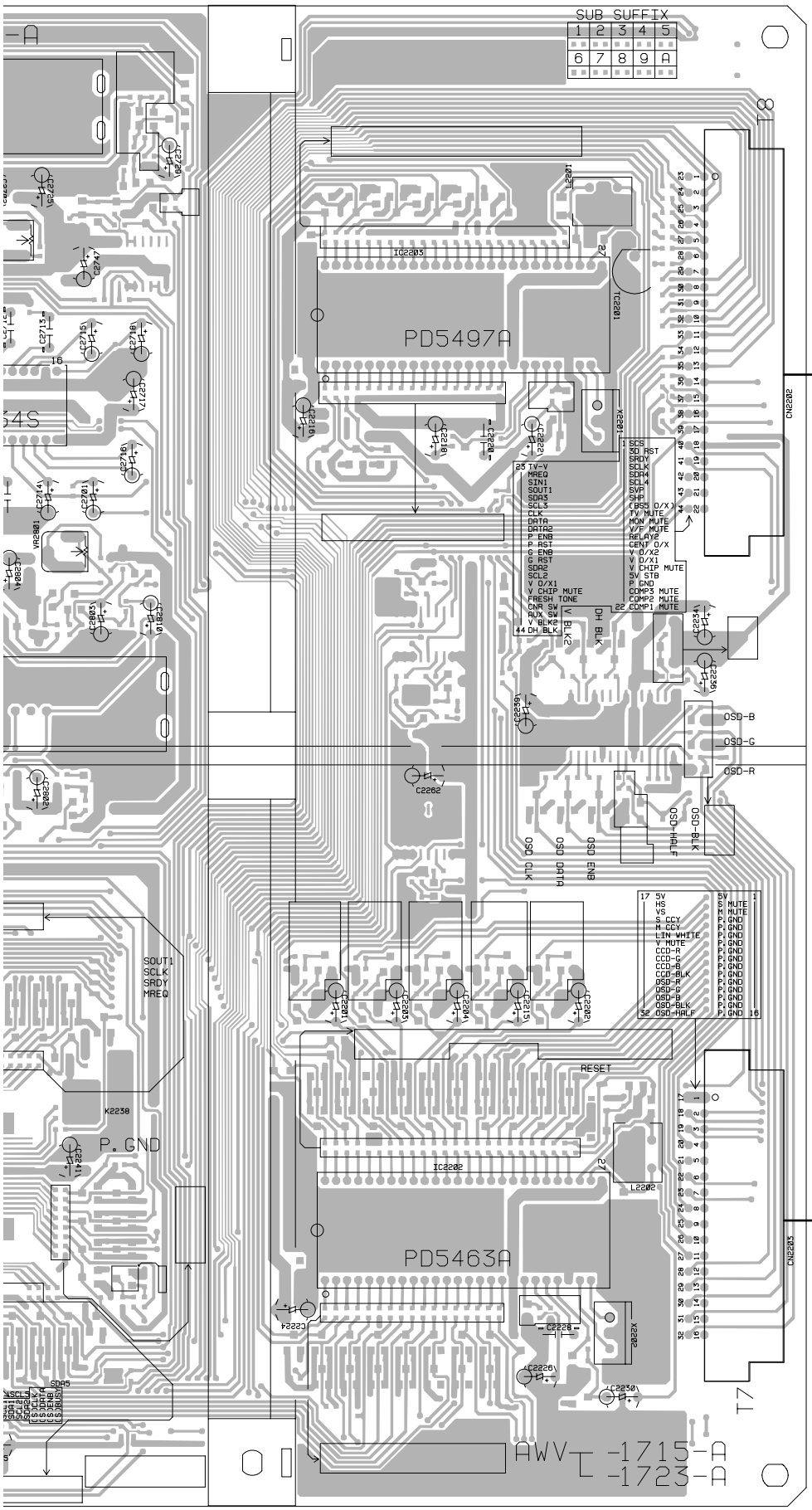


4.1 TUNER u-COM ASSY

A TUNER u-COM ASSY



SIDE A



B CN5605 U11

B CN5604 U12

VR2701 IC2203

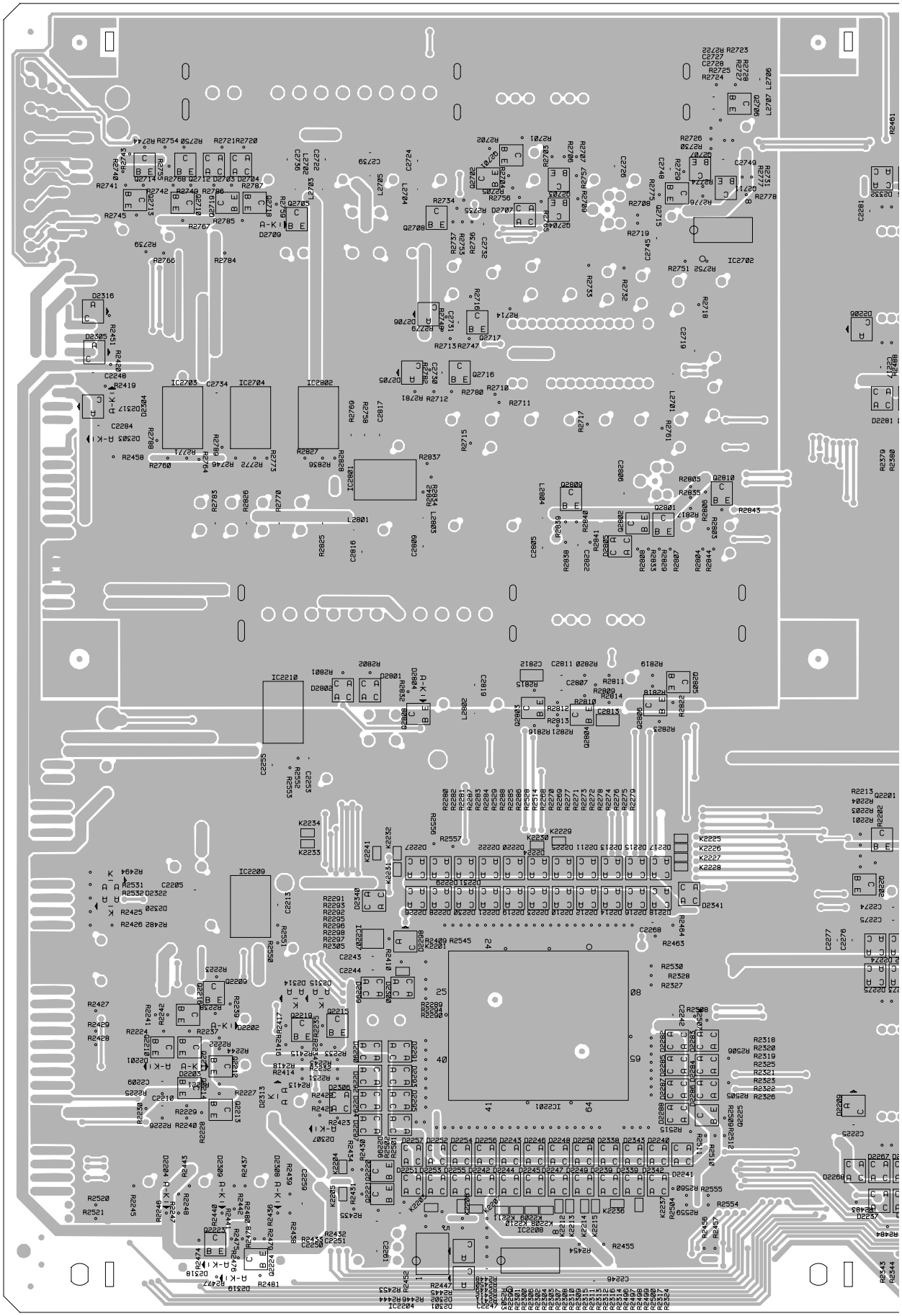
IC2701

VR2801

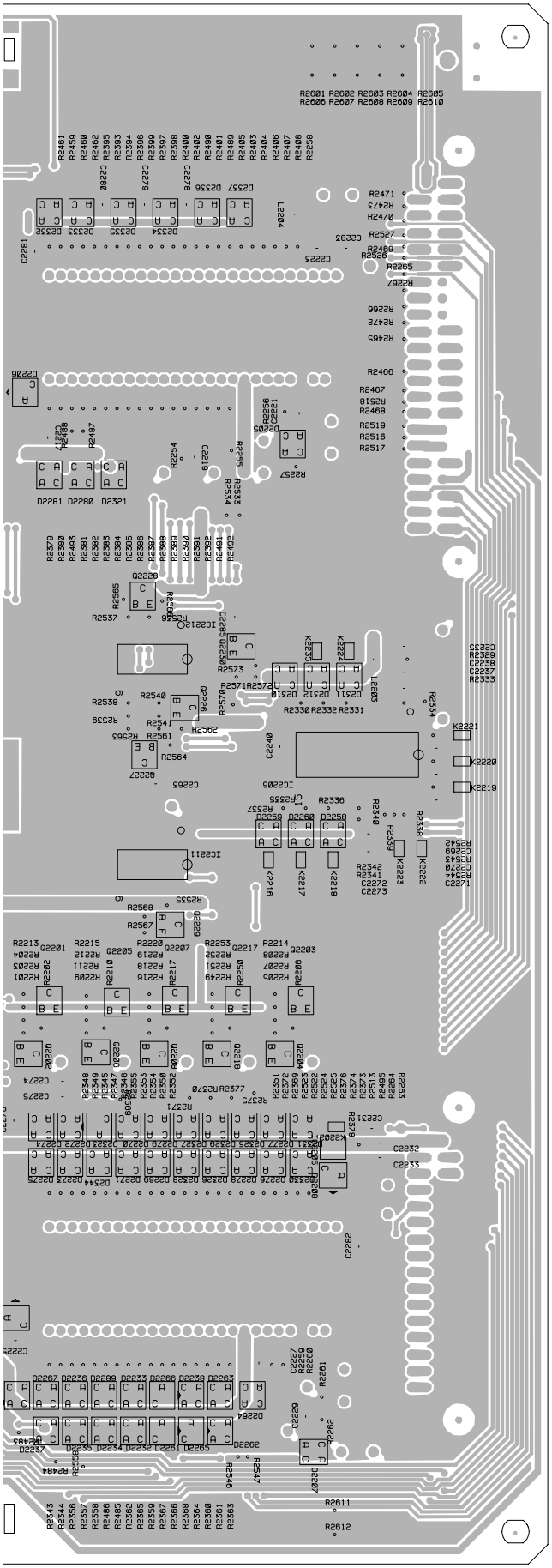
IC2202

Q2222

A TUNER u-COM ASSY



SIDE B



A

Q2706

Q2714 Q2712 Q2702 Q2701 Q2703 Q2707 Q2711
Q2713 Q2710 Q2705 Q2704 Q2715 IC2702

Q2717

IC2703 IC2704 IC2802 Q2809 Q2810 Q2228

B

Q2805 Q2802 Q2801 IC5515

Q2227 IC2206

IC2210 Q2808 Q2803 Q2804 Q2805 IC2211

C

Q2201 Q2205 Q2207 Q2229 Q2217 Q2203

IC2209 Q2202 Q2206 Q2208 Q2218 Q2204

IC2207

Q2216 Q2209 Q2219 Q2215

Q2210 Q2211 Q2212

Q2214
Q2213 Q2225

Q2220
Q2221

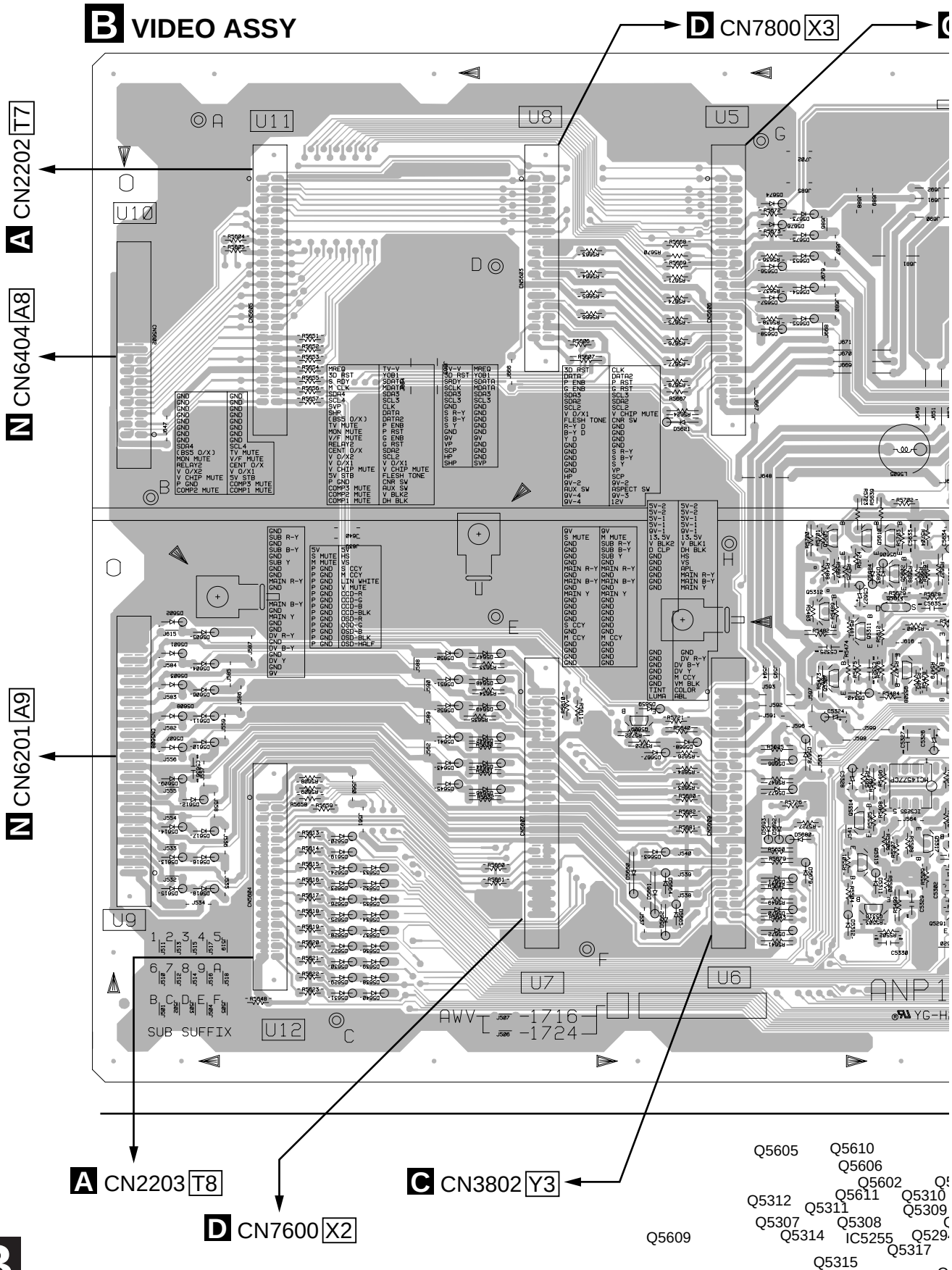
D

Q2223 Q2224 IC2208

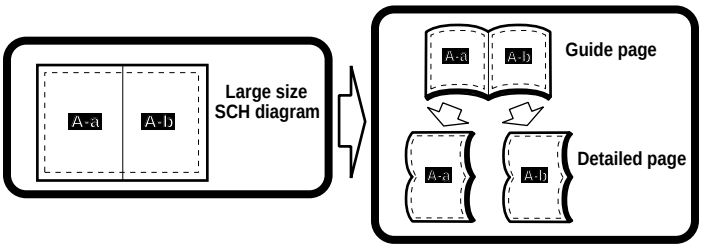
IC2204

4.2 VIDEO ASSY

B-a



B-b



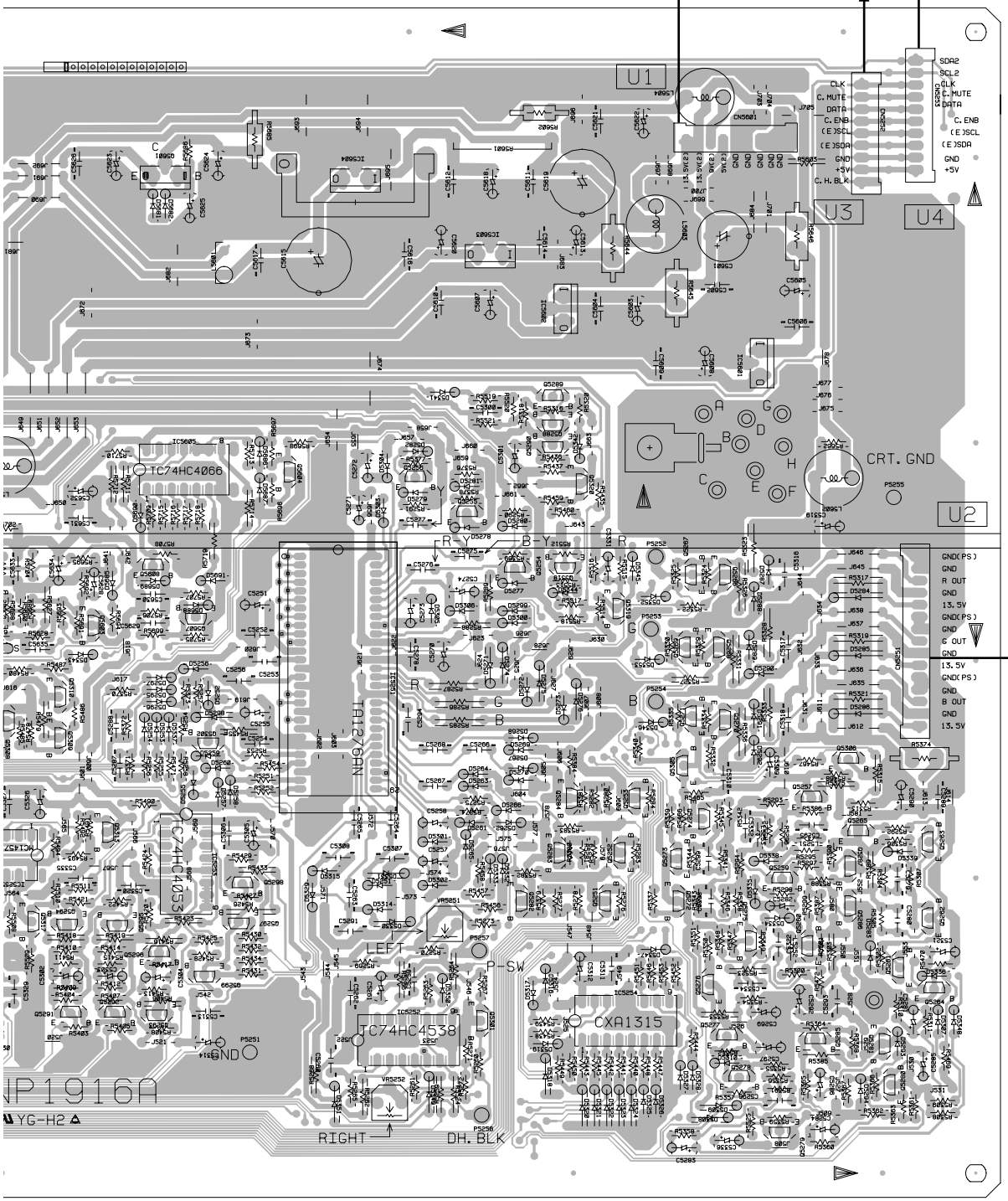
C CN3801 Y2

T CN204 E3

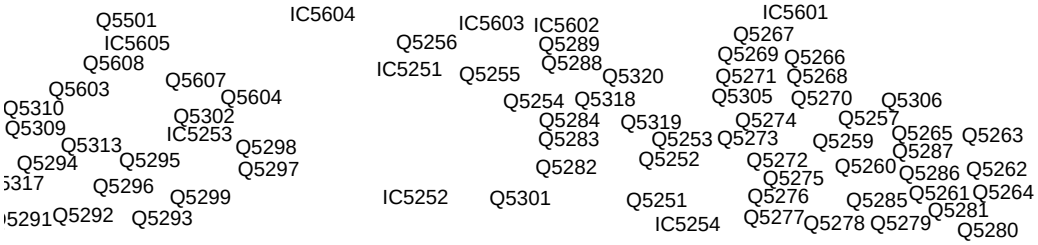
AUTO CONVER

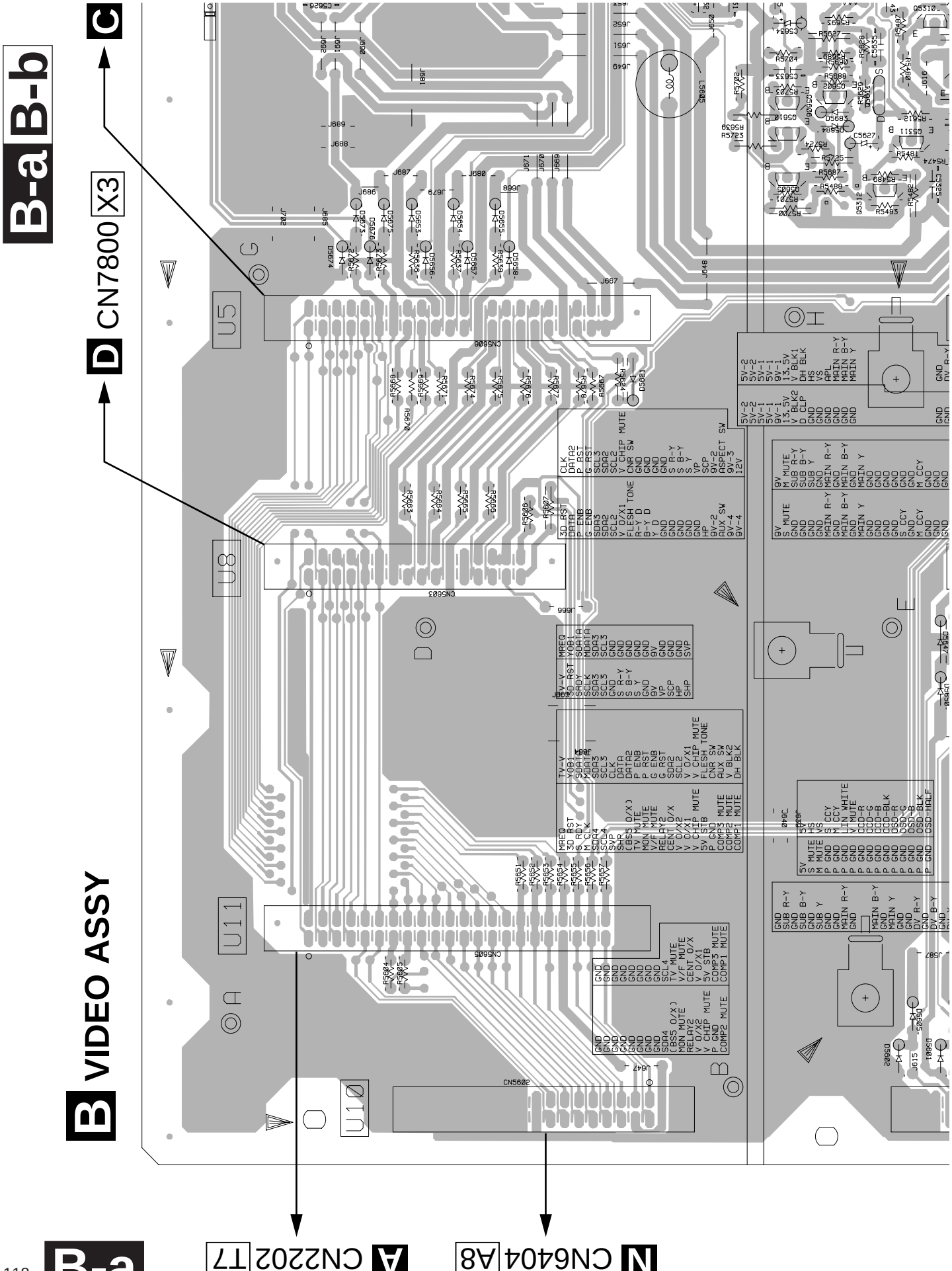
SIDE A

R, G, B CRT DRIVE ASSY
(P1: CN5201, N1: CN5151, M1: CN5101)



VR5252 VR5251




B-a B-b
C
D CN7800 X3
B VIDEO ASSY
N CN6404 A8
A CN2202 T7
B-a
118

5
6
7
8
A
B
C
D
B-a
B-b
Q5605
Q5609
Q5610
Q5606
Q5602
Q5611
Q5310
Q5309
Q5308
Q5311
Q5312
Q5307
Q5314
IC5255
Q5294
Q5317
Q5315
Q5316
Q5291
C CN3802 Y3
D CN7600 X2
A CN2203 T8
N CN6201 A9
U6
U7
U12
U9
SUB SUFFIX

SIDE A

B-a B-b

AUTO CONVER

T CN204 E3

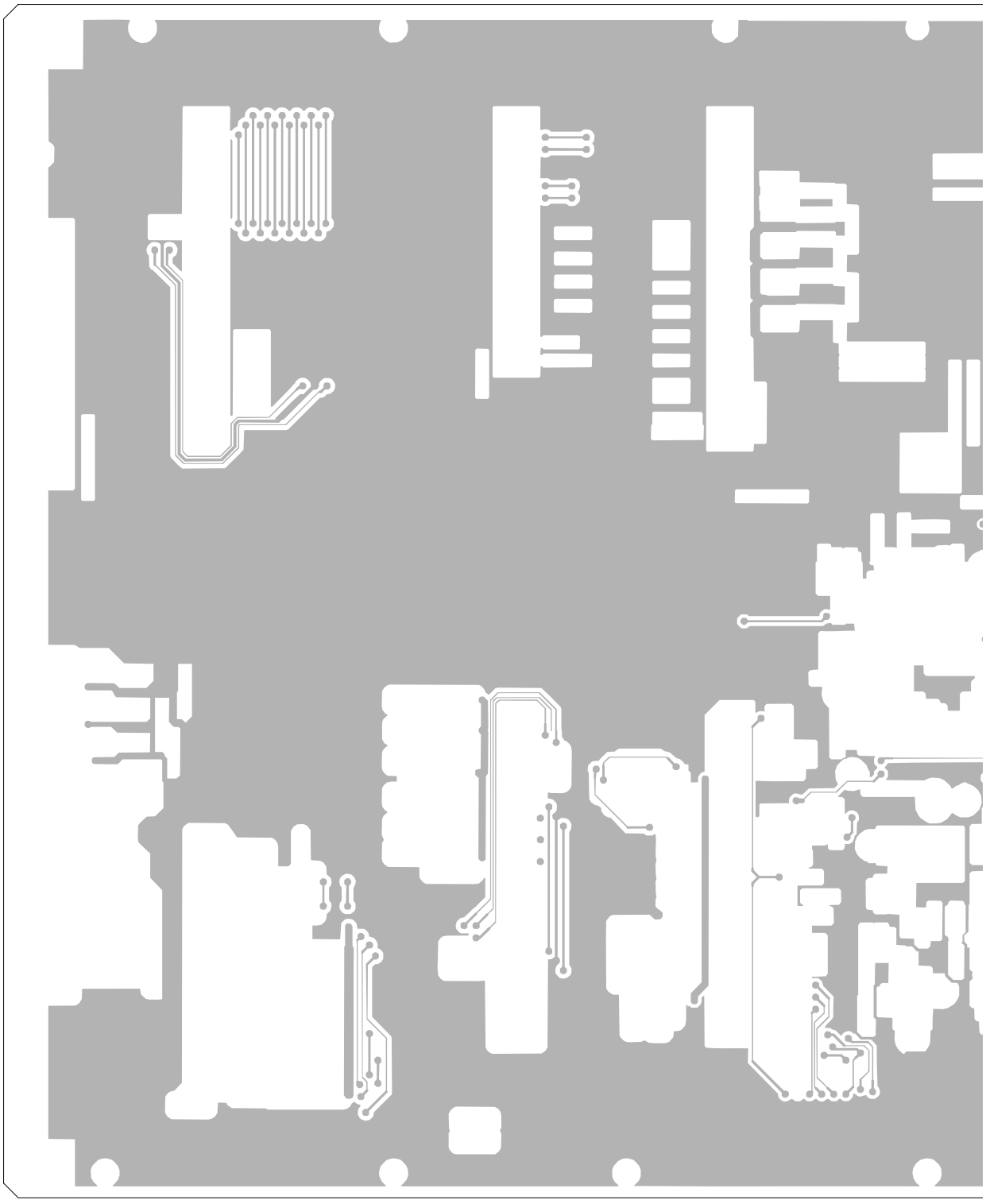
C CN3801 Y2

CRT DRIVE ASSY
(01, N1: CN5151, M1: CN5101)

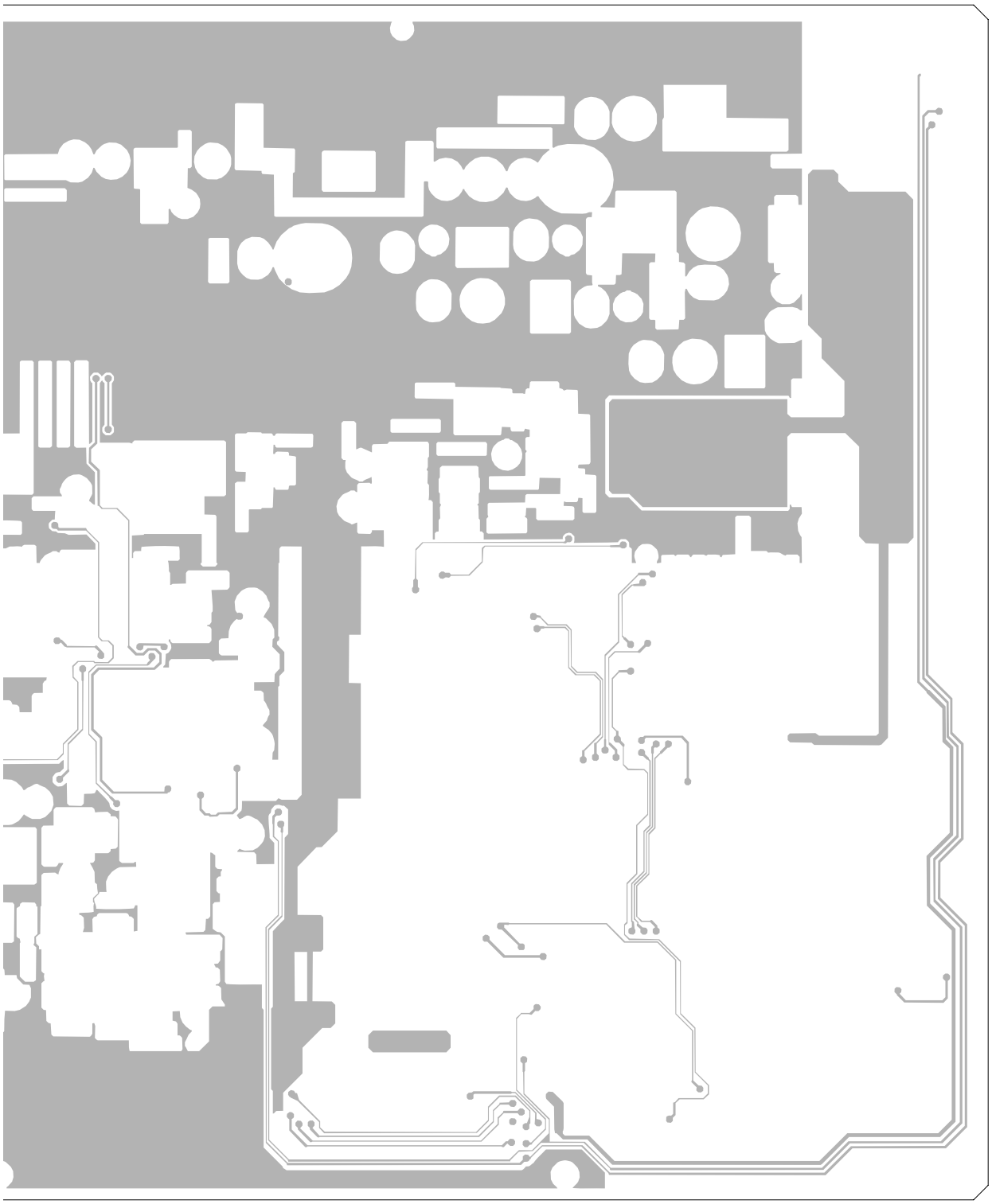
R, G, B CRT D
(P1: CN5201, I

B-a B-b

B VIDEO ASSY



SIDE B



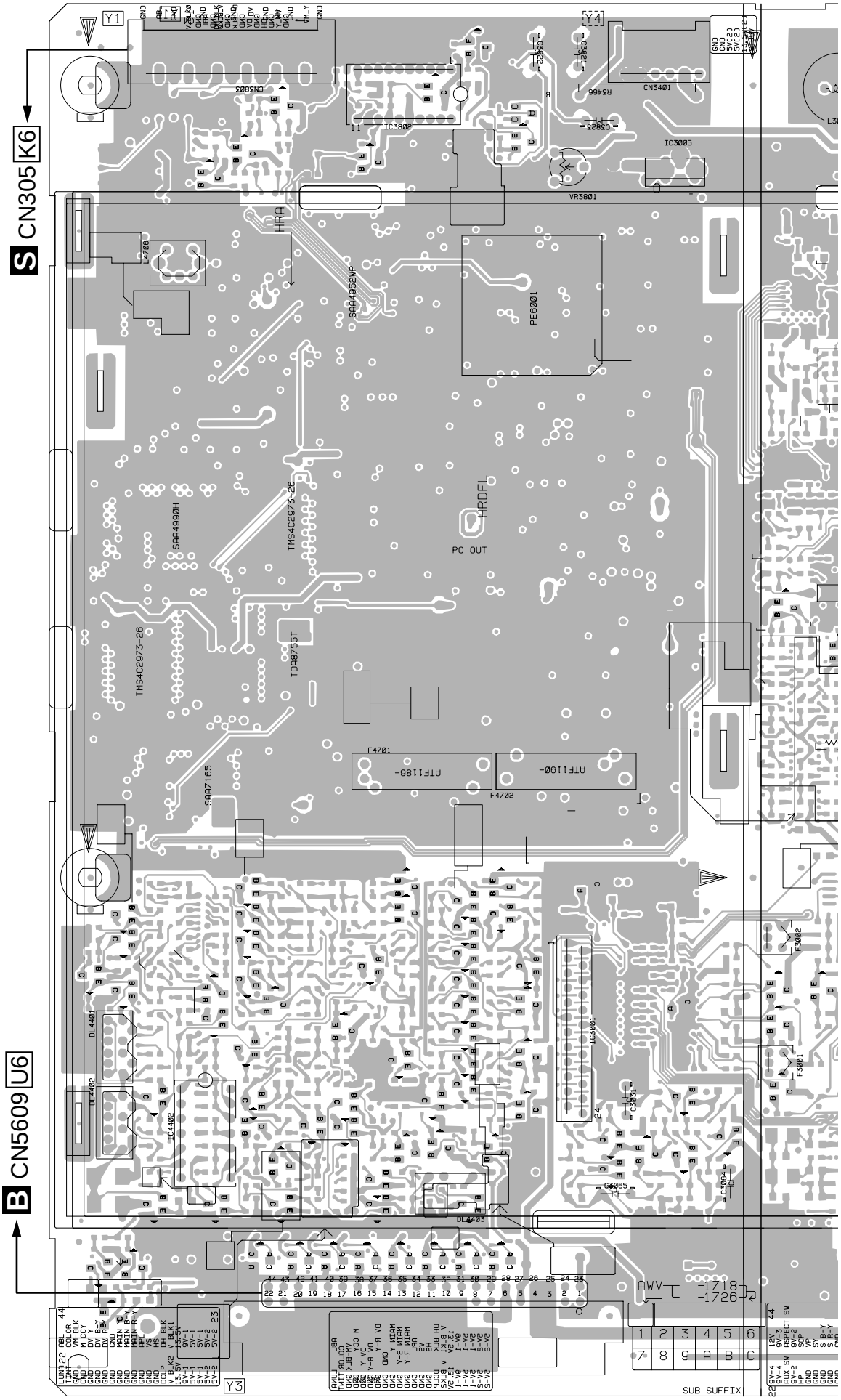
A

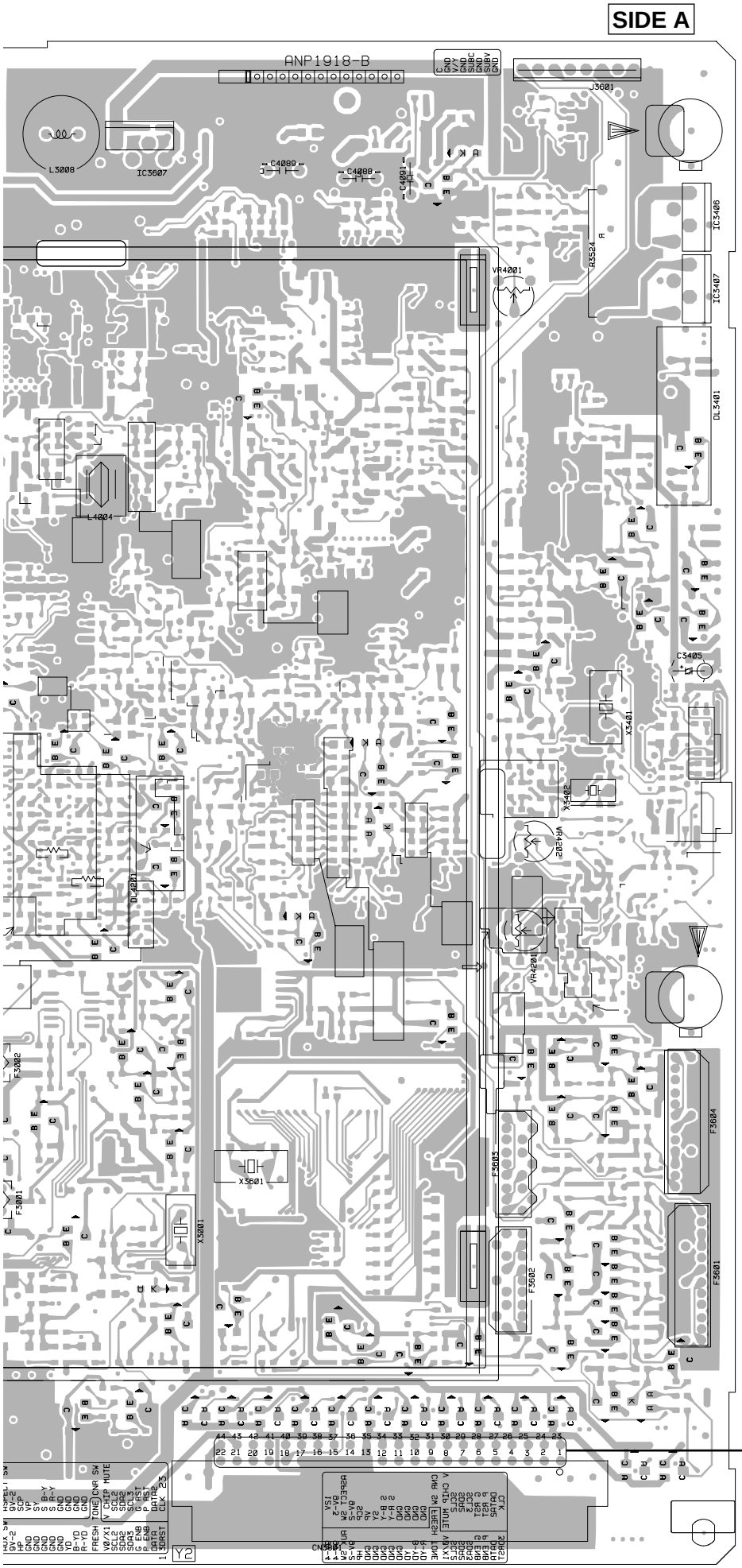
B

C

D

C SUB VIDEO ASSY





B CN5606 U5

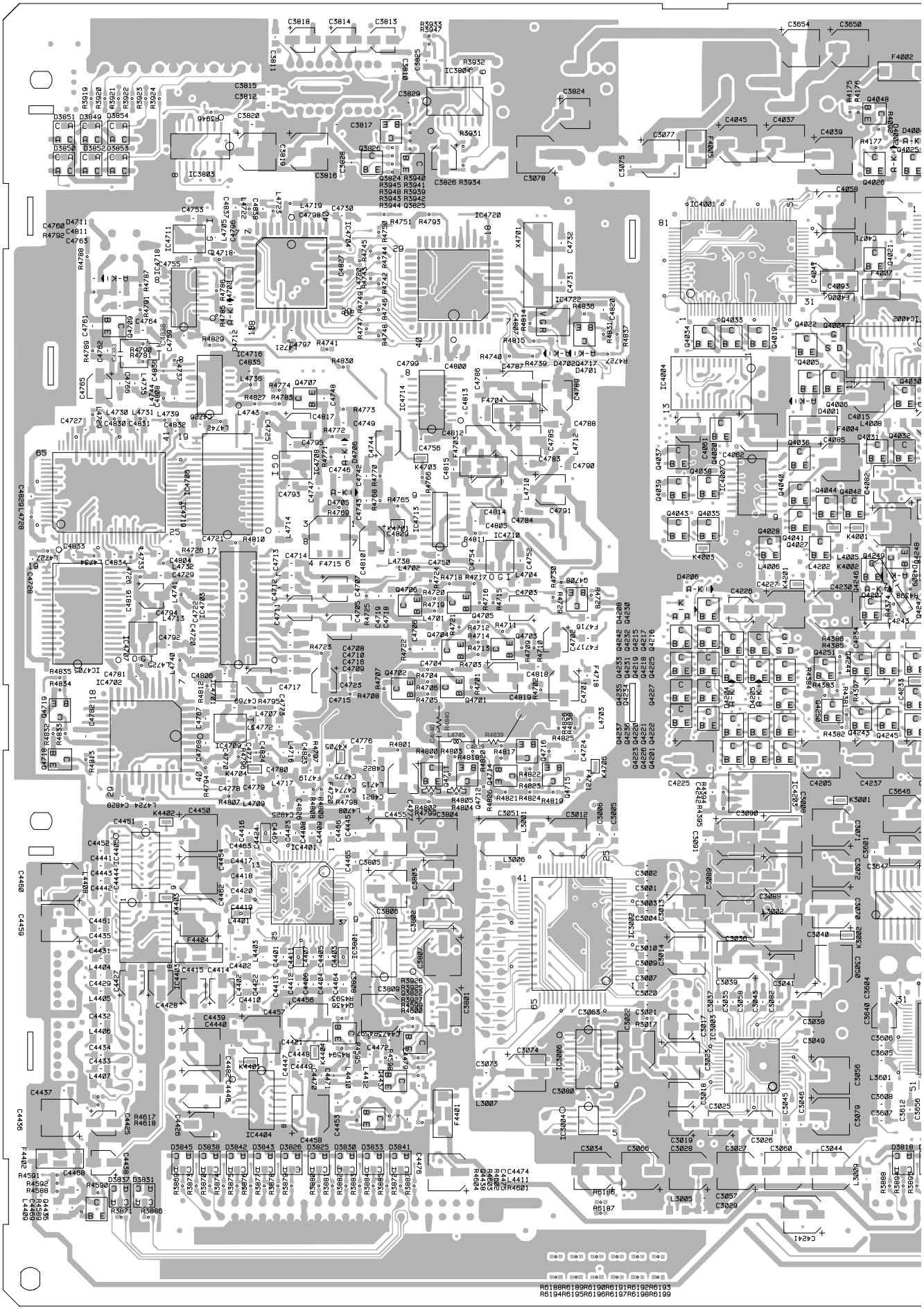
VR4001 VR3801

IC3407 IC3005 IC3802
IC3406 IC3607

VR4201 VR4202

IC4402 IC3001

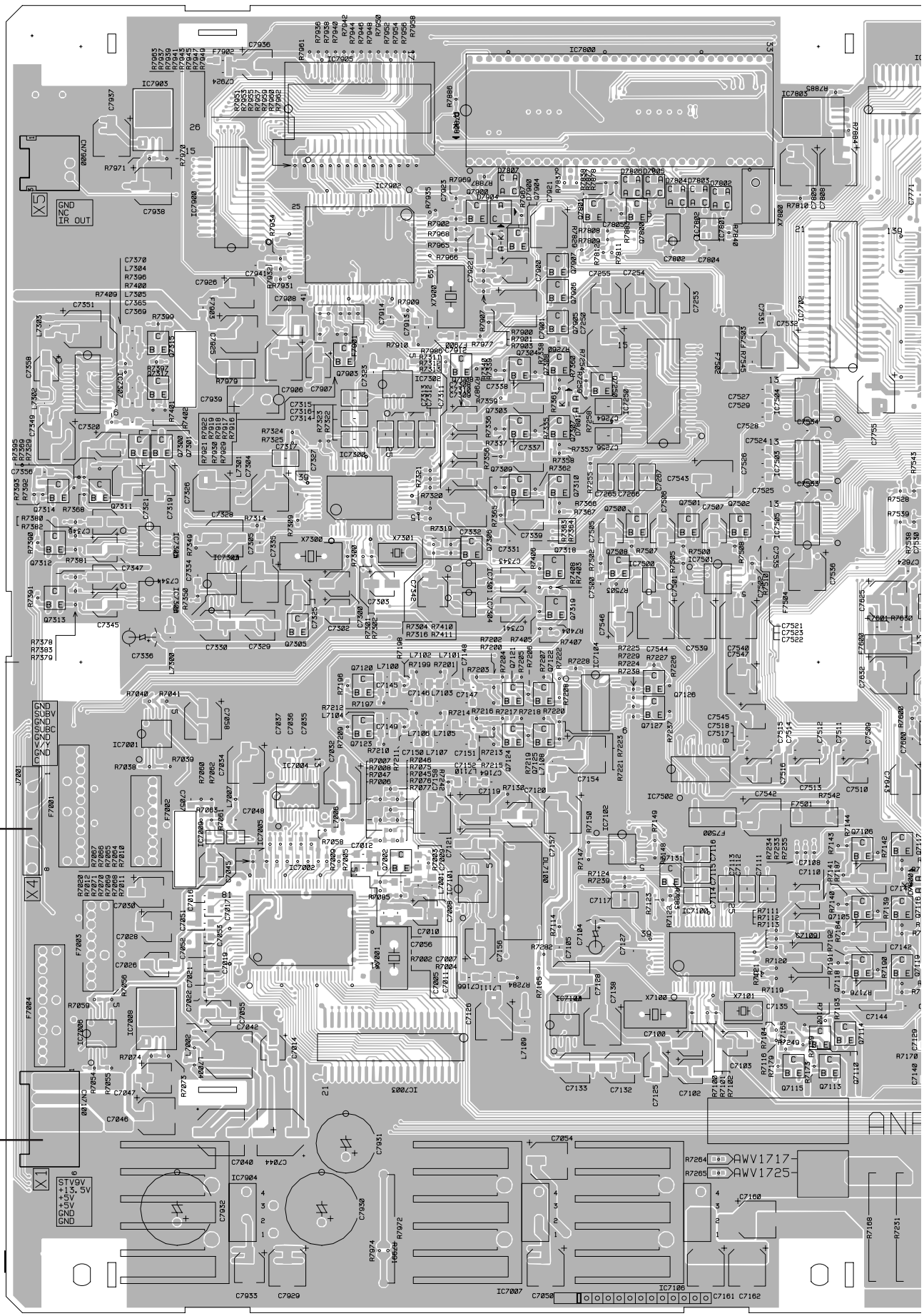
C SUB VIDEO ASSY

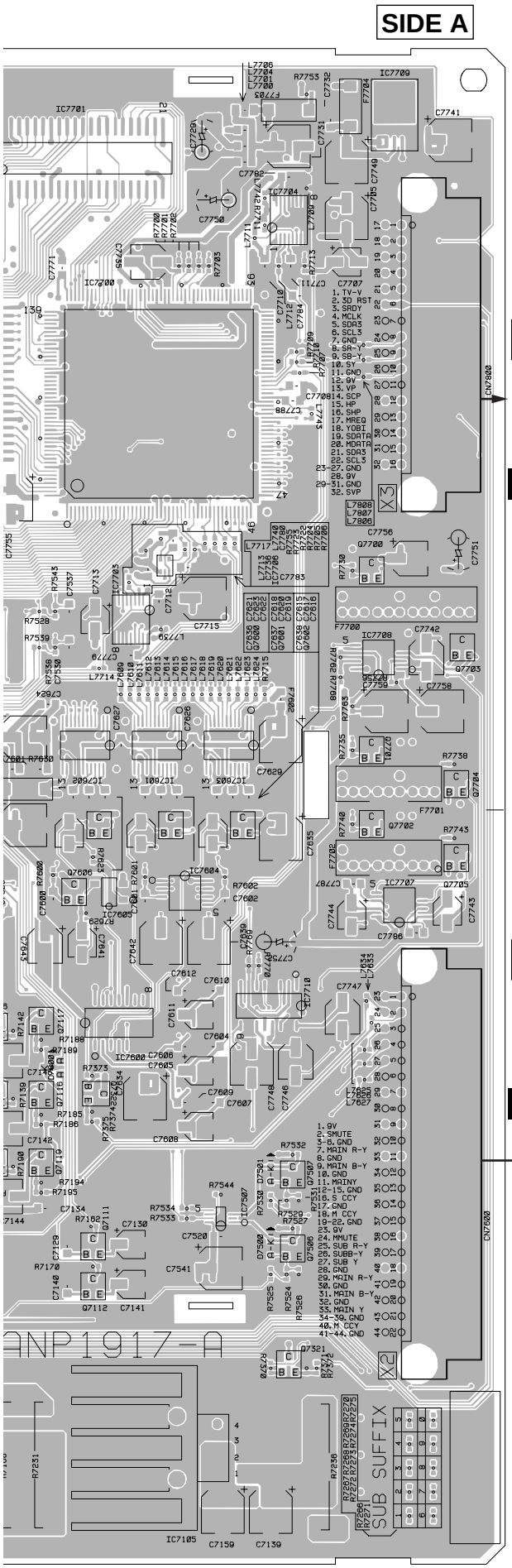


SIDE B

Q4435 IC3845 Q4437 IC3006 Q4436 IC4403 IC3603 IC4405 Q4711 Q4719 IC4707 IC4710 IC4706 Q4036 IC4707 IC4716 IC4718 IC3803 Q3826 Q4048 IC3084
Q4438 IC4404 IC3602 Q3822 IC3801 IC4401 Q4712 Q4718 IC4705 IC4703 IC4719 Q4006 IC4714 IC4709 IC4711 Q4025 IC4008 Q4435
IC3004 IC3003 IC3604 Q3416 Q4714 IC4701 Q4704 Q4028 IC4708 Q4031 IC4004 Q4717 Q4021 Q3824 Q4023 IC4009
IC3601 Q3002 Q3419 IC4203 Q4715 IC4709 Q4701 IC4702 IC4706 IC4713 Q4032 Q4005 IC4722 IC4704 Q4024 Q4045
IC3610 IC3605 Q4716 Q4701 Q4702 Q4708 Q4039 Q4034 Q3825 Q3413
IC3606 IC3609 Q4235 Q4703 Q4027 Q4038 Q4003 Q4033 IC4720 Q3412
IC3604 Q4233 Q4246 Q4043 Q4001 Q4019 Q4026
Q4234 Q4230 Q4249 Q4020 Q4008 Q4022 IC4001
Q4236 Q4231 Q4205 Q4040 Q4018 Q4004 Q3414
Q4227 Q4242 Q4248 IC4007 Q4015 IC4002 IC4005
Q4220 Q4219 Q4211 Q4044 Q4016 Q4009 Q3411
Q4250 Q4232 IC3405 Q4042 Q3404 Q4011 IC4010
Q4221 Q4218 IC3405 Q4042 Q3405 Q4010
Q4203 Q4215 Q4207 IC4003 Q4012
Q4222 Q4225 Q4210 Q4014
Q4204 Q4217 Q3406 IC4006
Q4223 Q4251 Q4209 Q4013
IC4201 Q4216 Q3415 Q4017
Q4226 Q4244 Q3407 IC3404
Q4202 Q3418
Q4201 Q4206
IC4202 Q3421
Q3424 Q3417
Q3445 IC3401
Q3420

D SIGNAL ASSY





IC7709
IC7903 IC7905 IC7805

IC7704

IC7900 Q7900 Q7801 Q7800 IC7802 IC7801
IC7700

Q7907
Q7906
Q7905

Q7315 Q7304 Q7308
IC7307 Q7903 IC7302 Q7908 Q7250

IC7520
Q7303 Q7308

Q7300 IC7300 Q7700
Q7309 Q7310 IC7503 IC7703 IC7706

Q7314 Q7311 Q7500 Q7501 Q7502 IC7705 IC7708 Q7703

Q7312 IC7305 IC7302 Q7305 Q7318 Q7508 IC7500 IC7501

Q7313 IC7306 IC7301 IC7304 Q7319 Q7701

Q7305 Q7319 IC7602 IC7601 IC7603 Q7704

Q7120 Q7121 Q7122 IC7104 Q7126 Q7702

IC7001 IC7004 Q7123 Q7124 Q7125 Q7606 IC7604 IC7707 Q7705

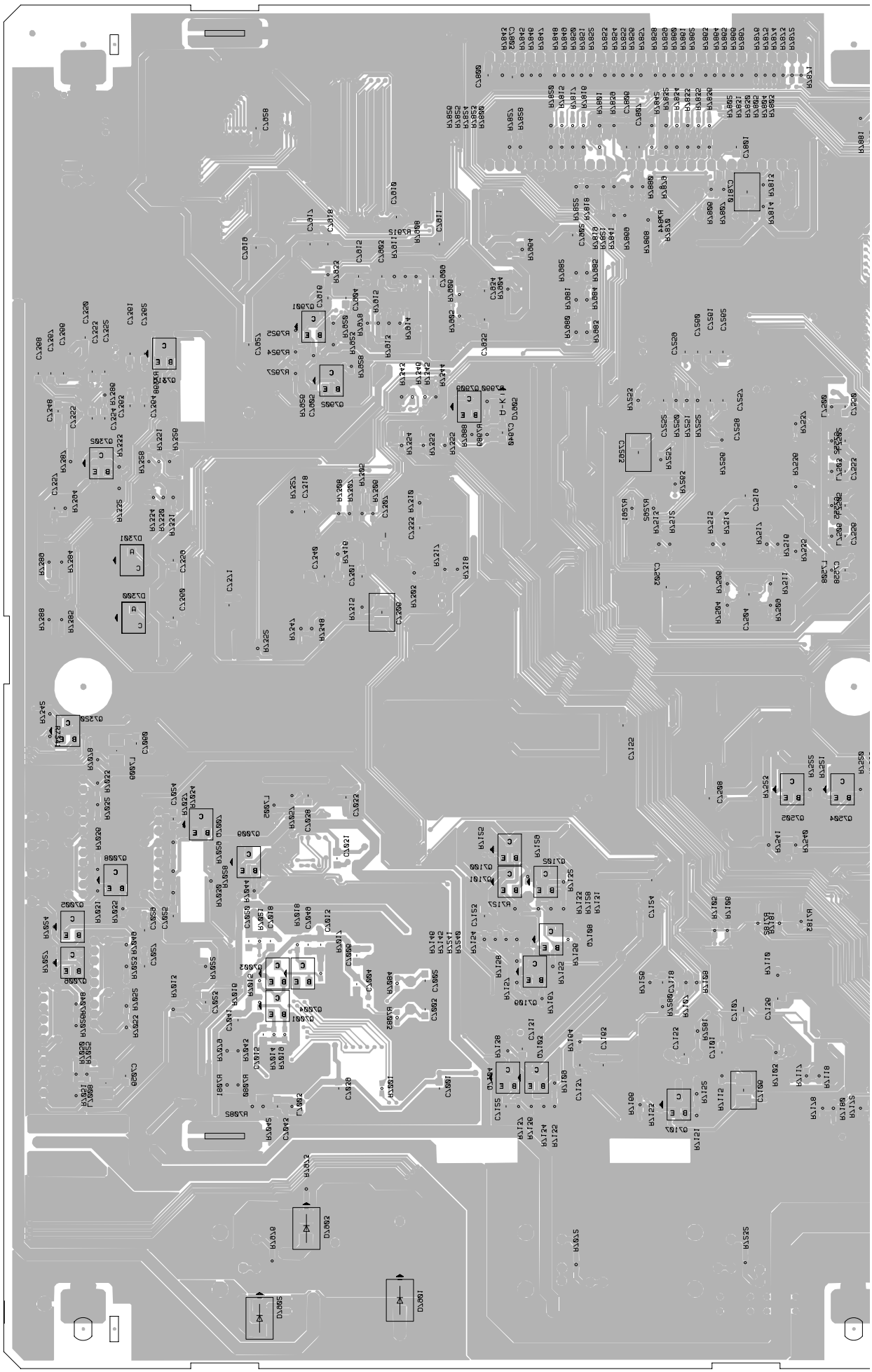
IC7502
IC7009 IC7005 IC7102 Q7131 Q7106 Q7117 IC7600 IC7710

IC7002 Q7002 IC7101 IC7100 Q7105 Q7116 Q7322

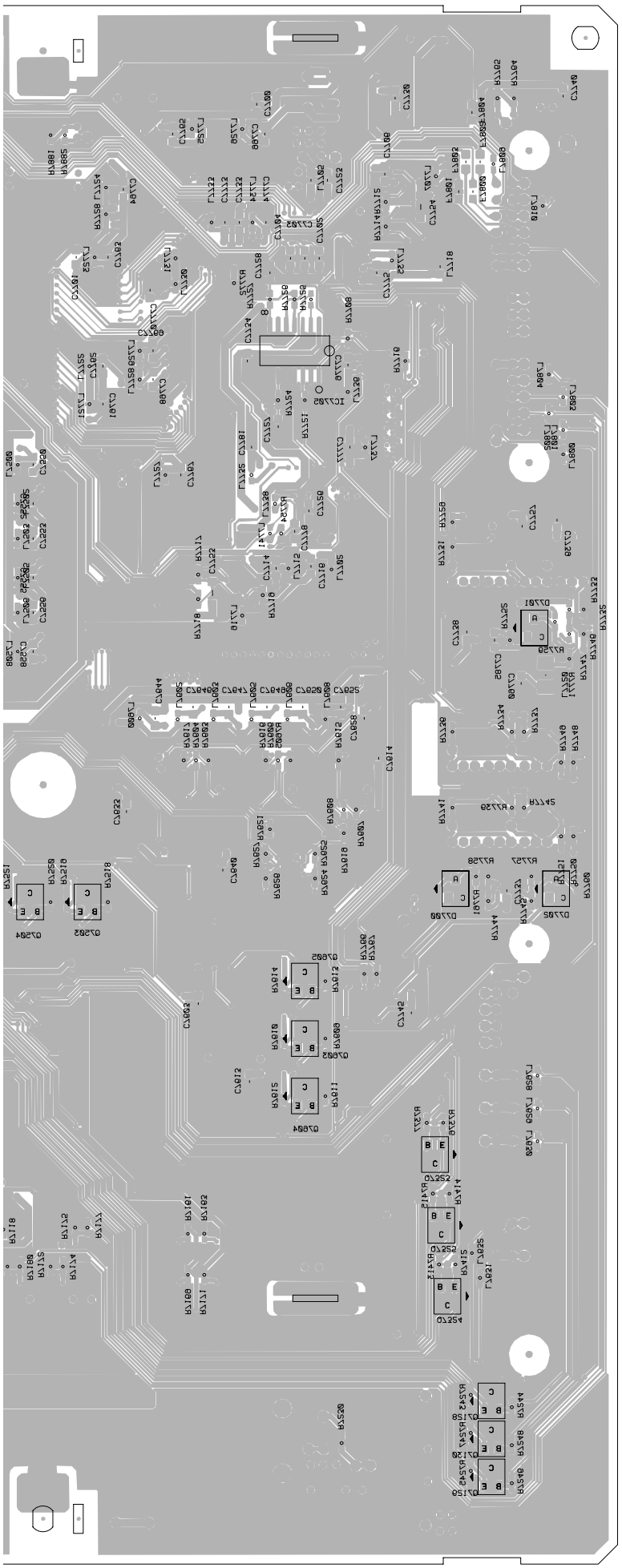
IC7123 Q7118 Q7119 Q7507

Q7114 Q7111 IC7507 Q7506
IC7006 IC7008 IC7003 Q7115 Q7113 Q7110 Q7112 Q7321

D SIGNAL ASSY



SIDE B



Q7901 IC7705

Q7311 Q7902 Q7909

Q7302

Q7320

Q7007 Q7009 Q7505 Q7504 Q7503

Q7008 Q7100 Q7102 Q7101

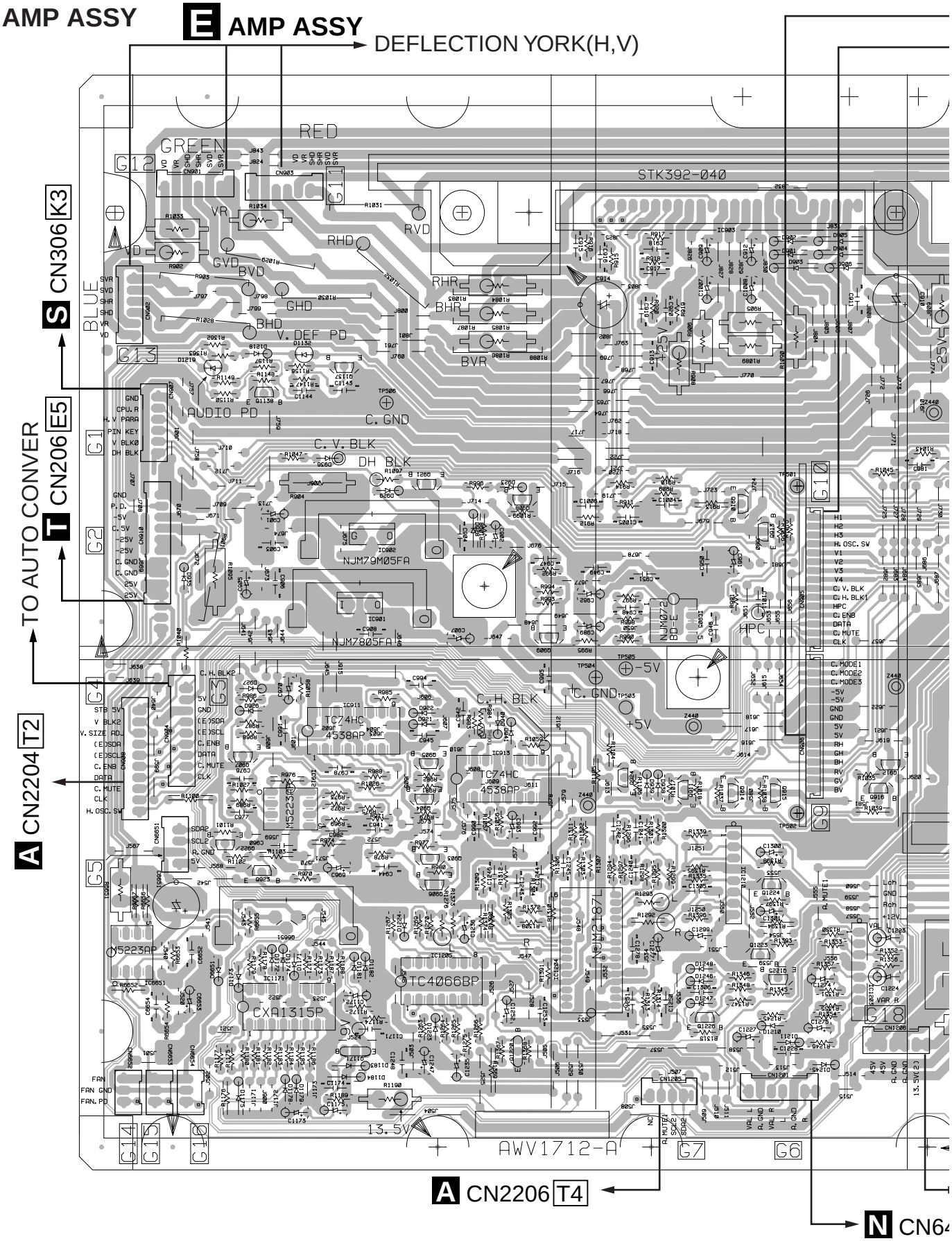
Q7002 Q7108 Q7603

Q7005 Q7003 Q7604 Q7323
Q7004 Q7001 Q7109

Q7104 Q7325

Q7107 Q7324

Q7904 Q7128
Q7130
Q7129
IC7007 IC7106 IC7105

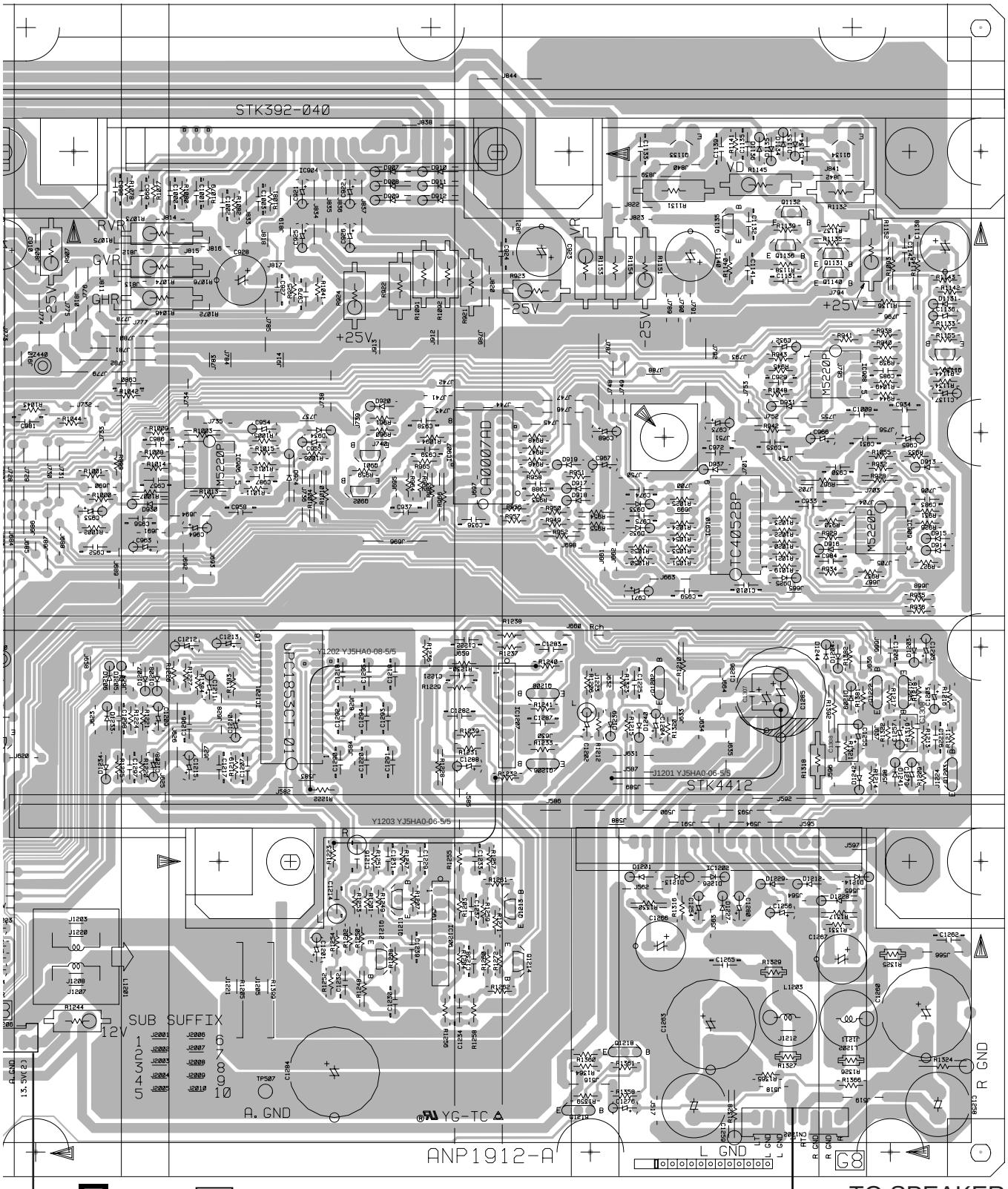


IC6651 Q1138 Q907 Q922 Q923 IC1171 Q1137 IC902 IC901 IC911 IC912 Q1171 Q921 Q905 Q904 Q903 Q906 IC1205 Q908 Q909 IC913 IC1204 Q1220 Q924 IC903 Q910 IC905 Q911 Q914 Q1226 Q913 Q915 IC1210 Q1224 Q1223 Q1225 Q912 Q916 IC1203

G CN1804 C2

G CN1803 C1

SIDE A



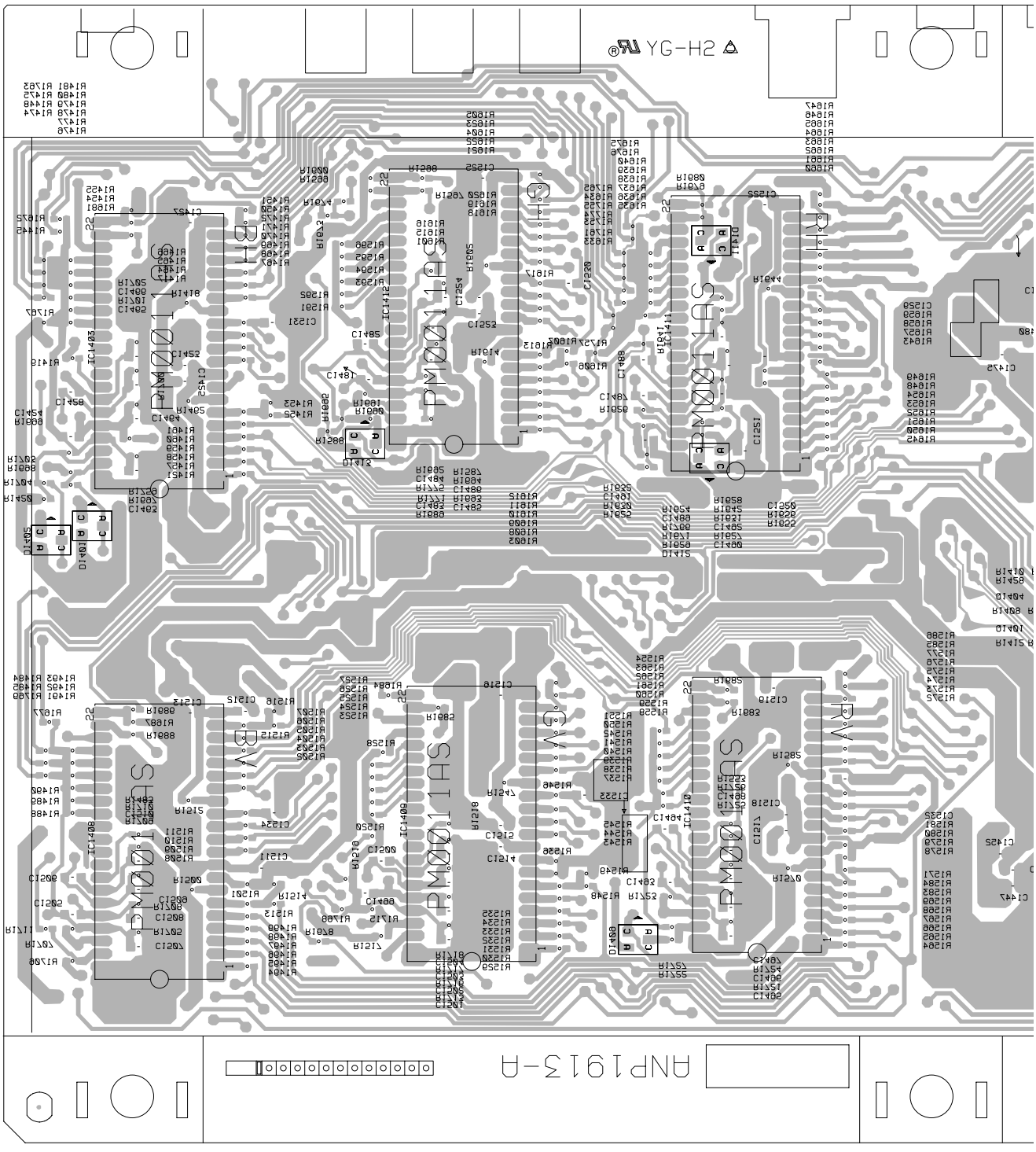
T CN211 E4

CN6403 A1

IC904 IC906 IC1201 Q901 Q902 Q1211 Q1212 IC907 IC1206 IC1207 Q1213 Q1214 Q1208 Q1206 Q1218 Q1219 Q1133 Q1135 IC910 Q1202 IC1202 Q1132 Q1136 Q1134 Q1131 Q1140 IC908 IC909 Q1222 Q1139 Q1205 Q1203

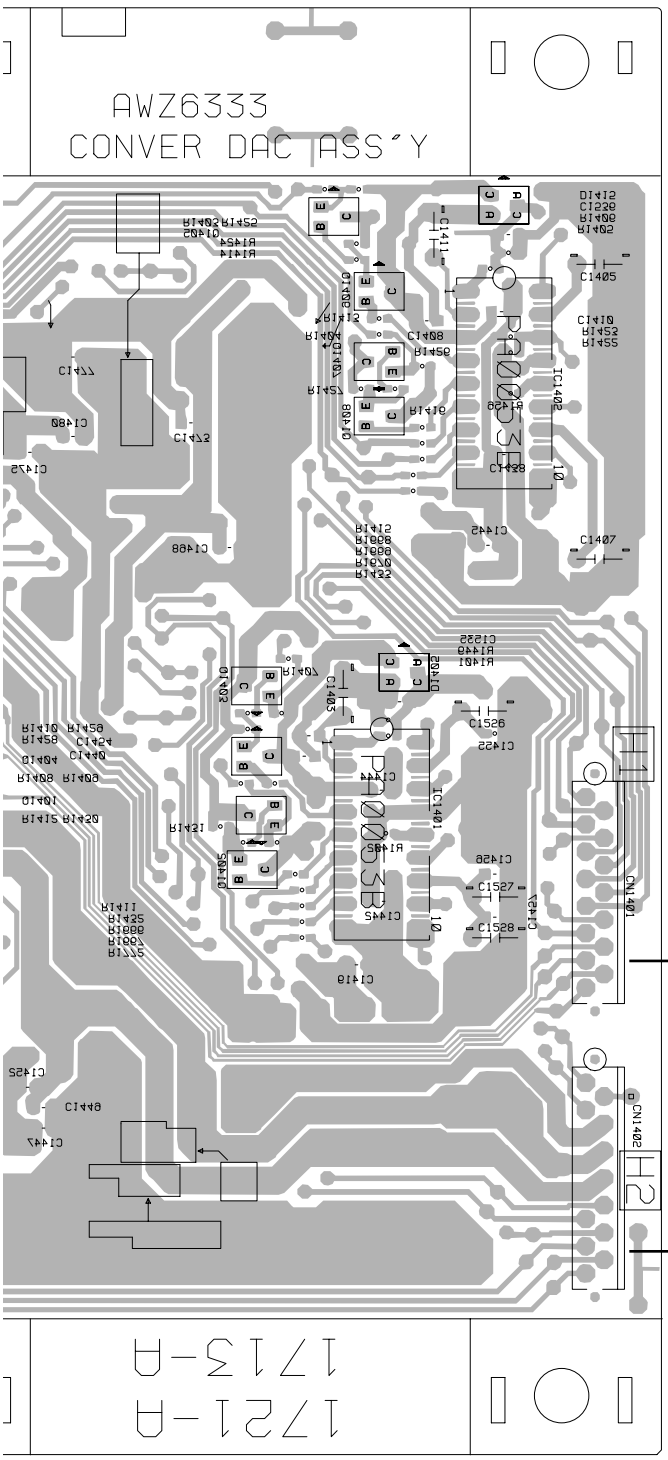
4.6 CONVER.DAC ASSY, CONNECTOR ASSY

F CONVER.DAC ASSY

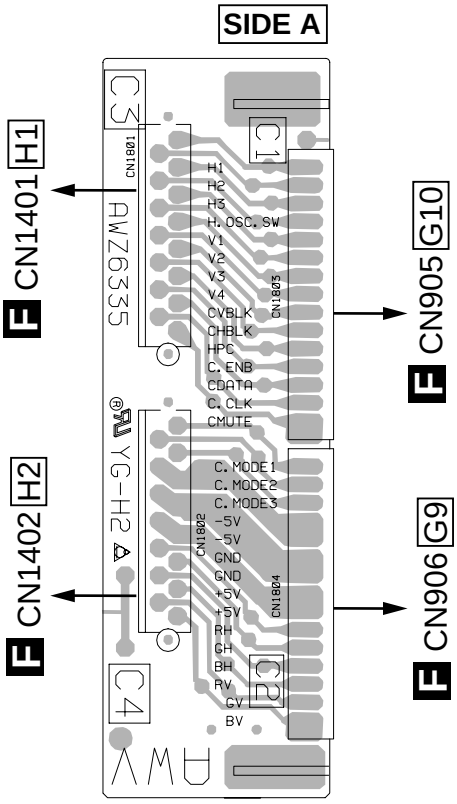


IC1403	IC1412	IC1411
IC1408	IC1409	IC1410

SIDE A



G CONNECTOR ASSY

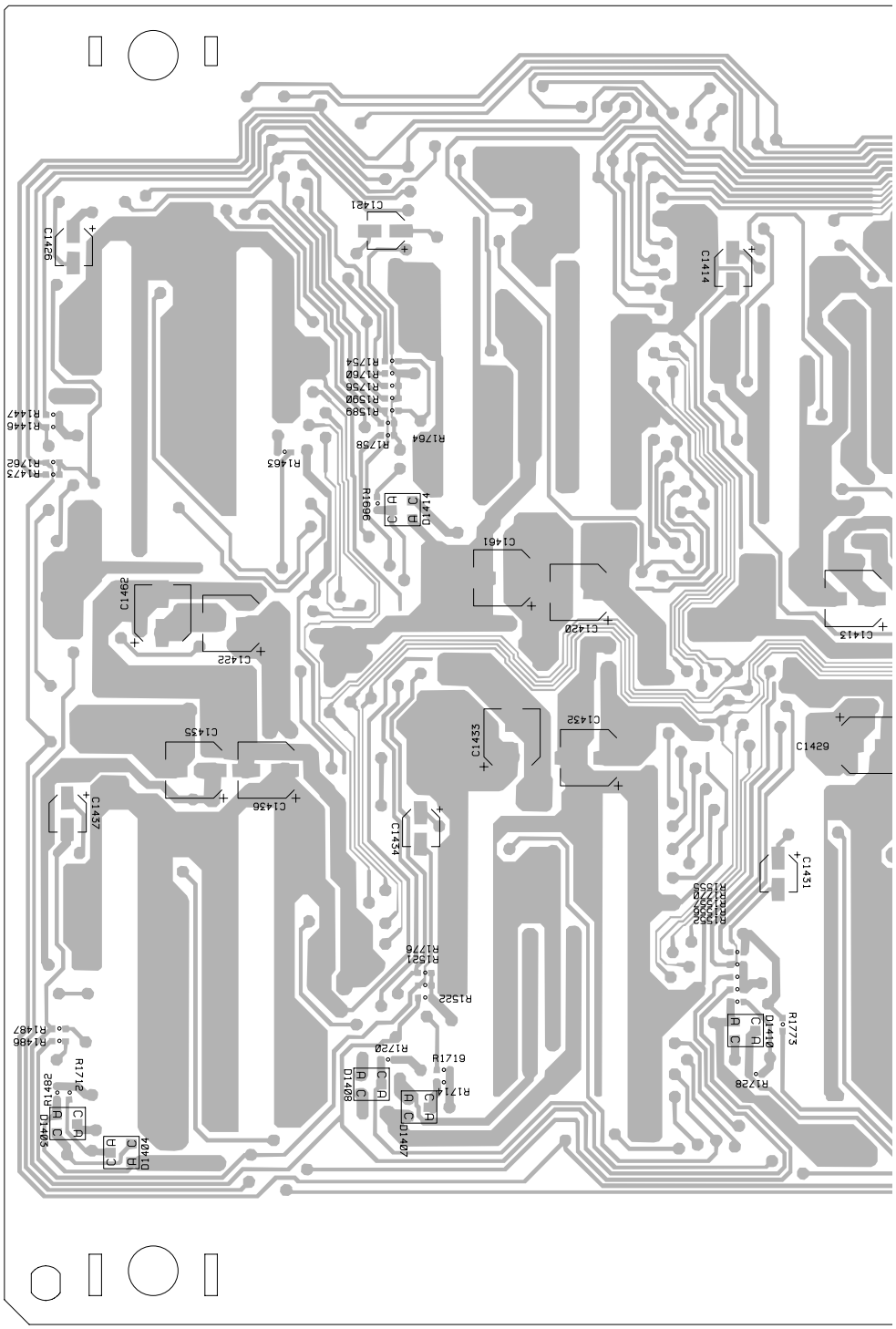


Q1403
Q1404
Q1401
Q1402

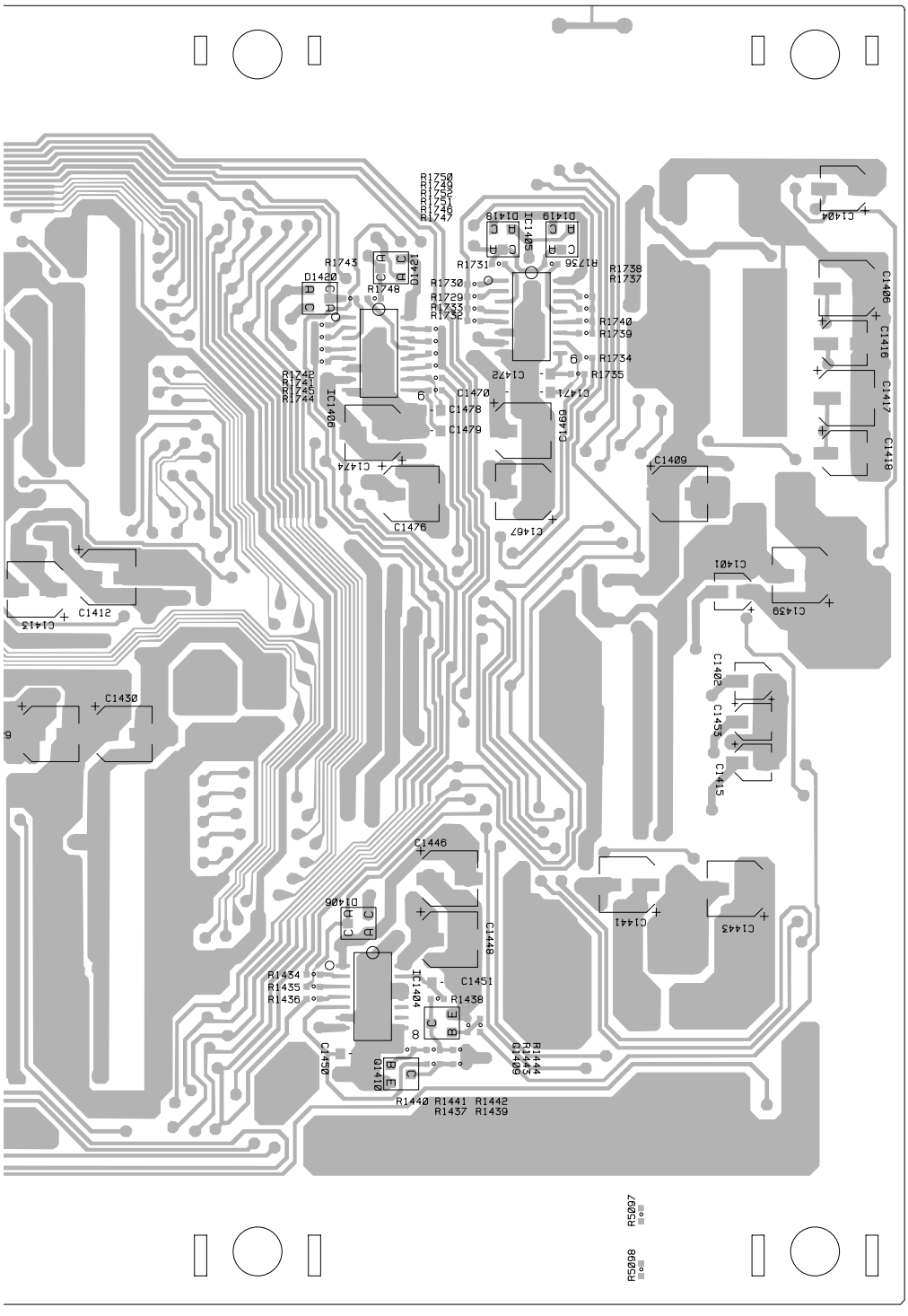
Q1405
Q1406
Q1407
Q1408
IC1401

IC1402

F CONVER.DAC ASSY



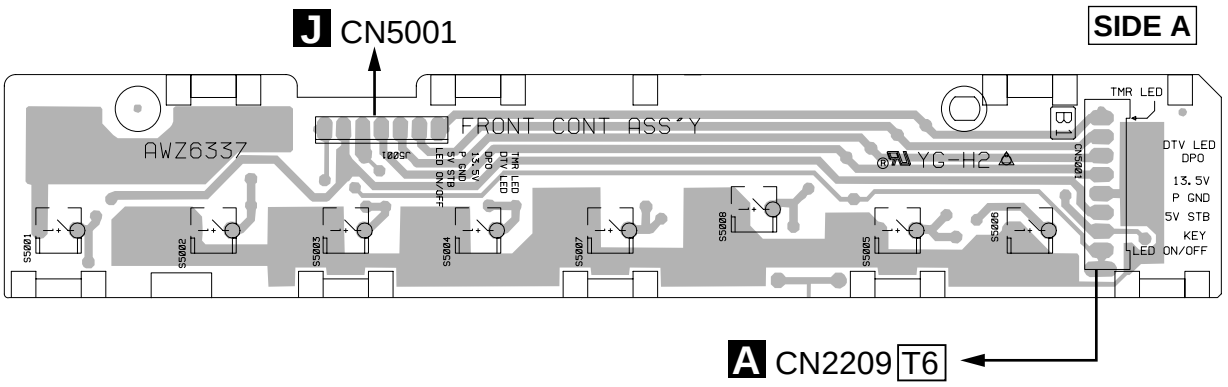
SIDE B



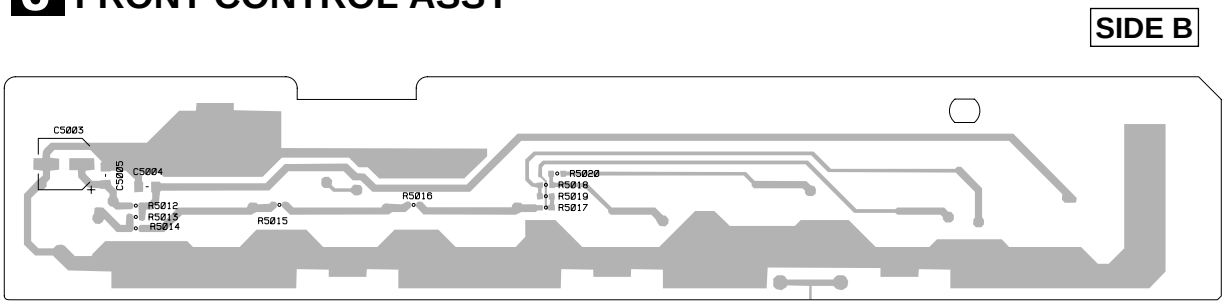
IC1404 Q1410 IC1405
Q1409

4.7 FRONT CONTROL ASSY

J FRONT CONTROL ASSY



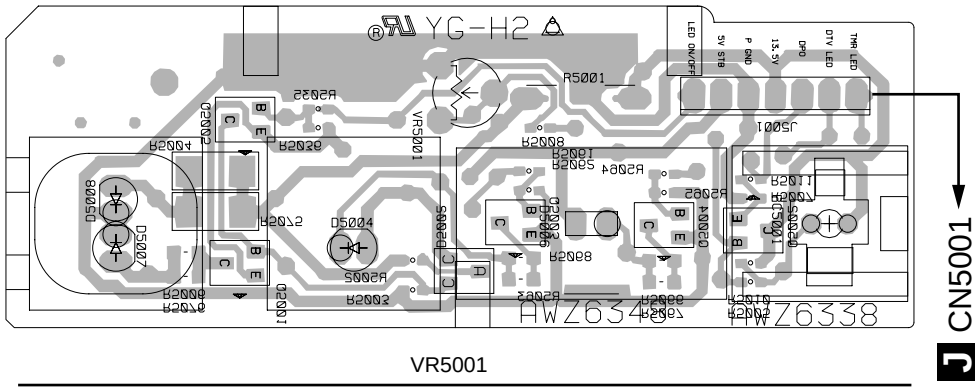
J FRONT CONTROL ASSY



4.8 LED DPO ASSY

K LED DPO ASSY

SIDE A

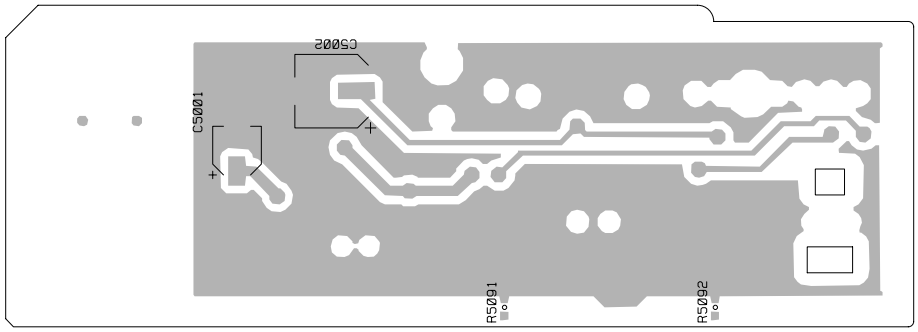


VR5001

Q5005 Q5003 Q2004 Q2005
Q5001

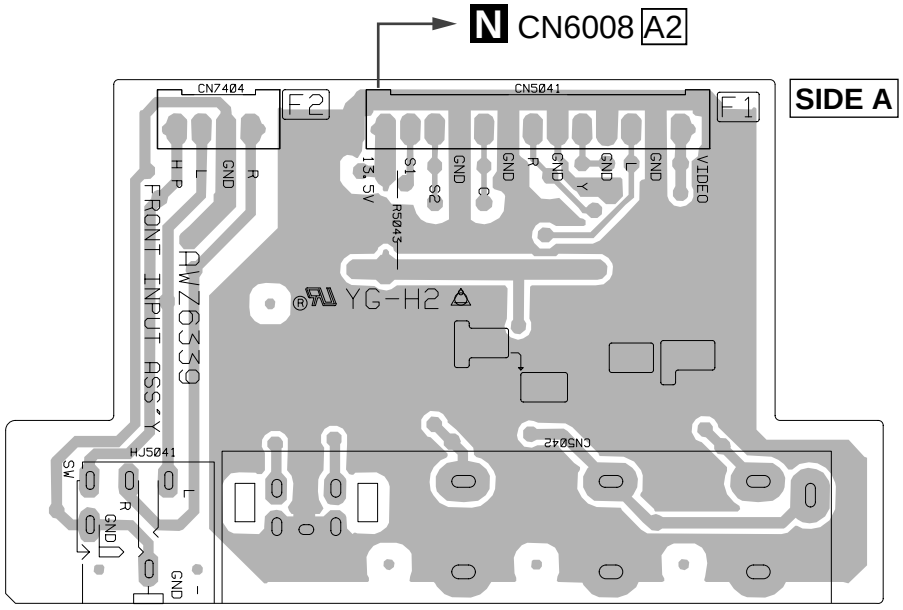
K LED DPO ASSY

SIDE B

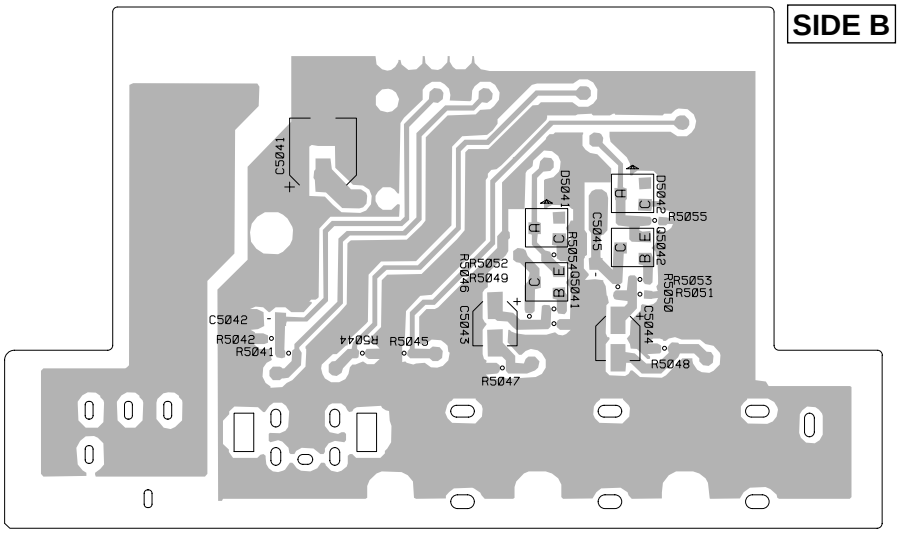


4.9 FRONT INPUT ASSY

FRONT INPUT ASSY



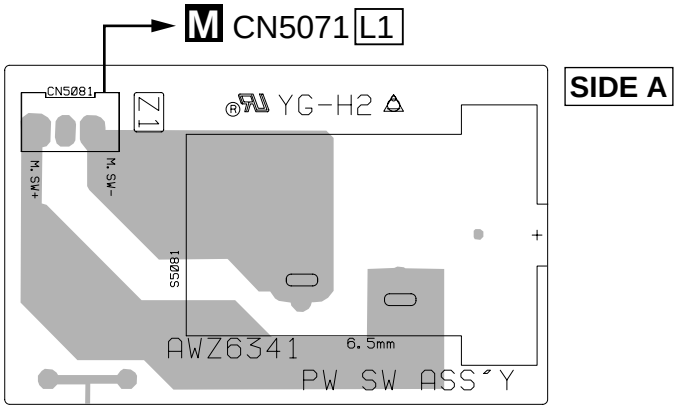
FRONT INPUT ASSY



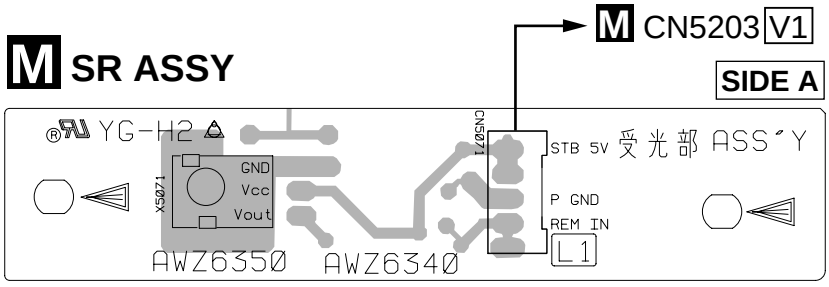
Q5041 Q5042

4.10 POWER SW ASSY, SR ASSY

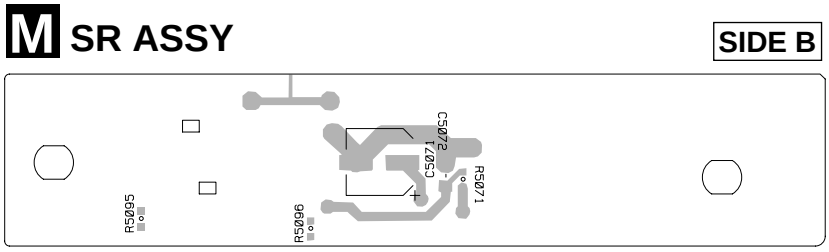
L POWER SW ASSY



M SR ASSY

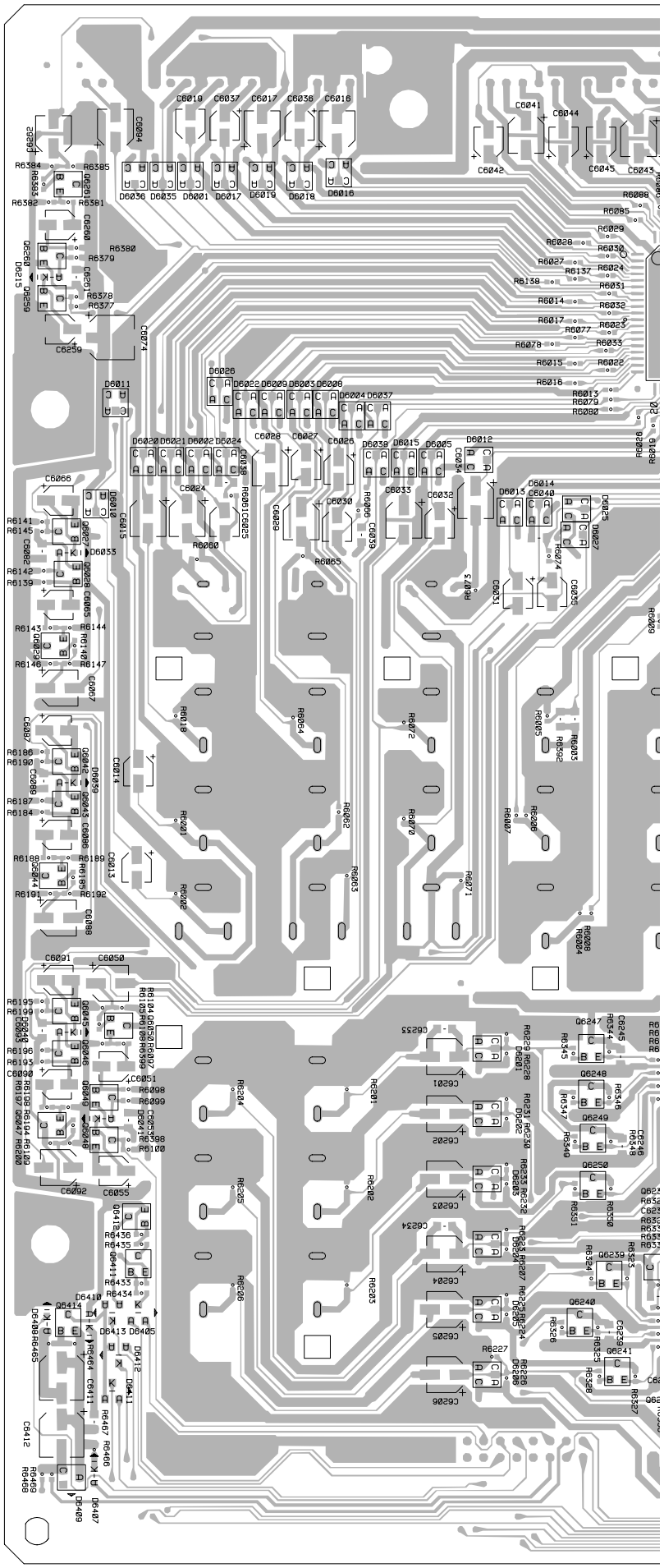


M SR ASSY



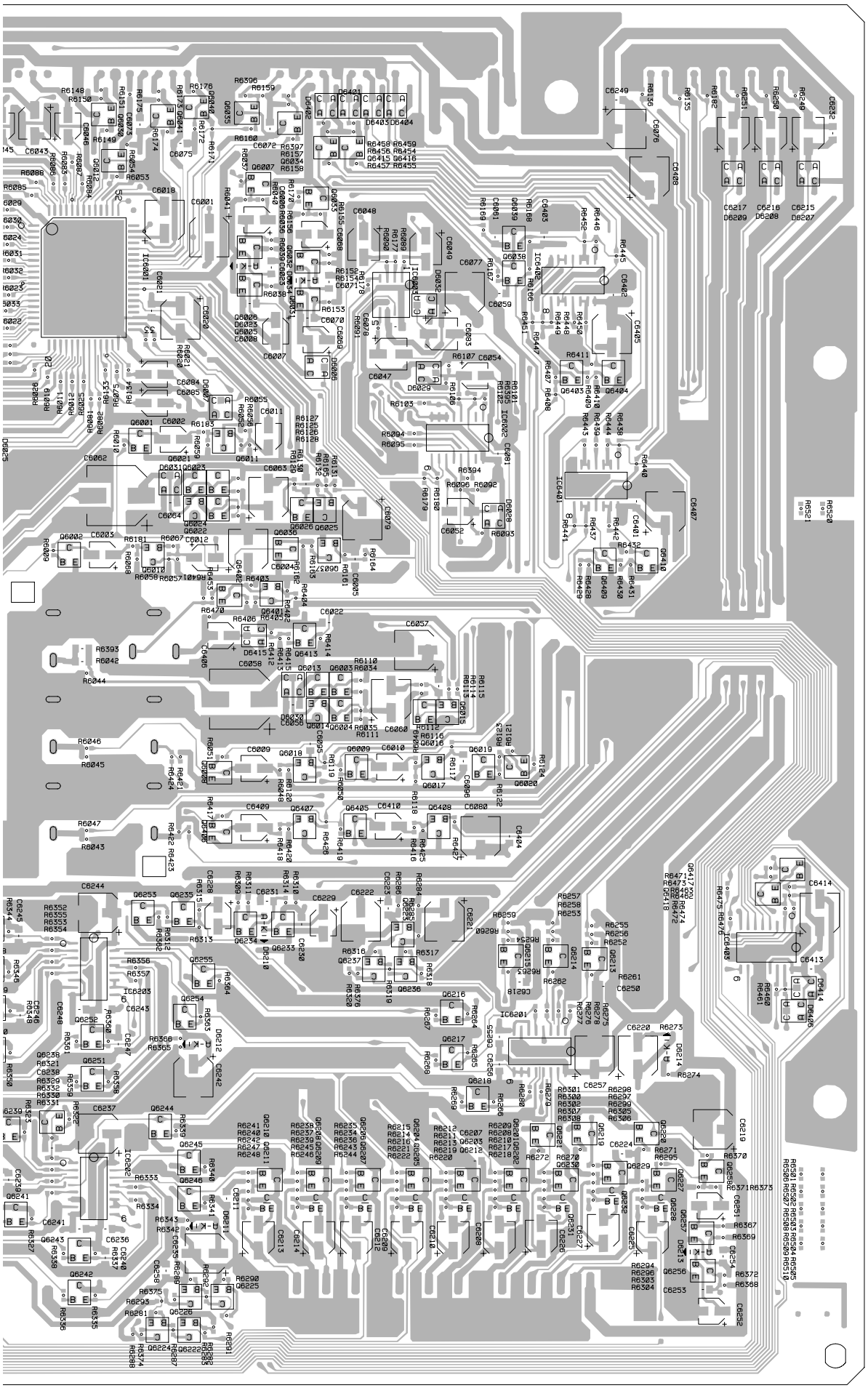
4.11 AV I/O ASSY

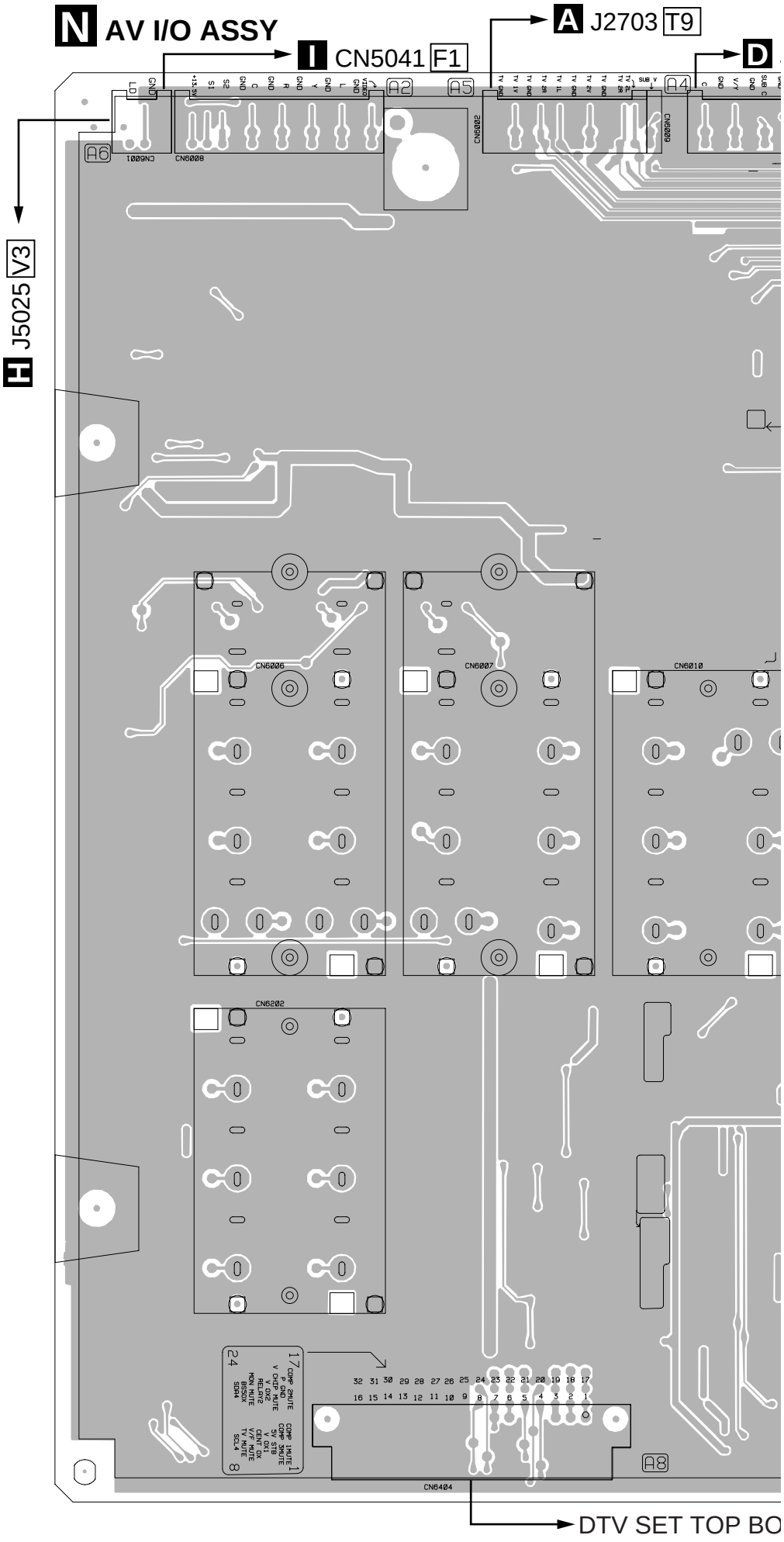
AV I/O ASSY

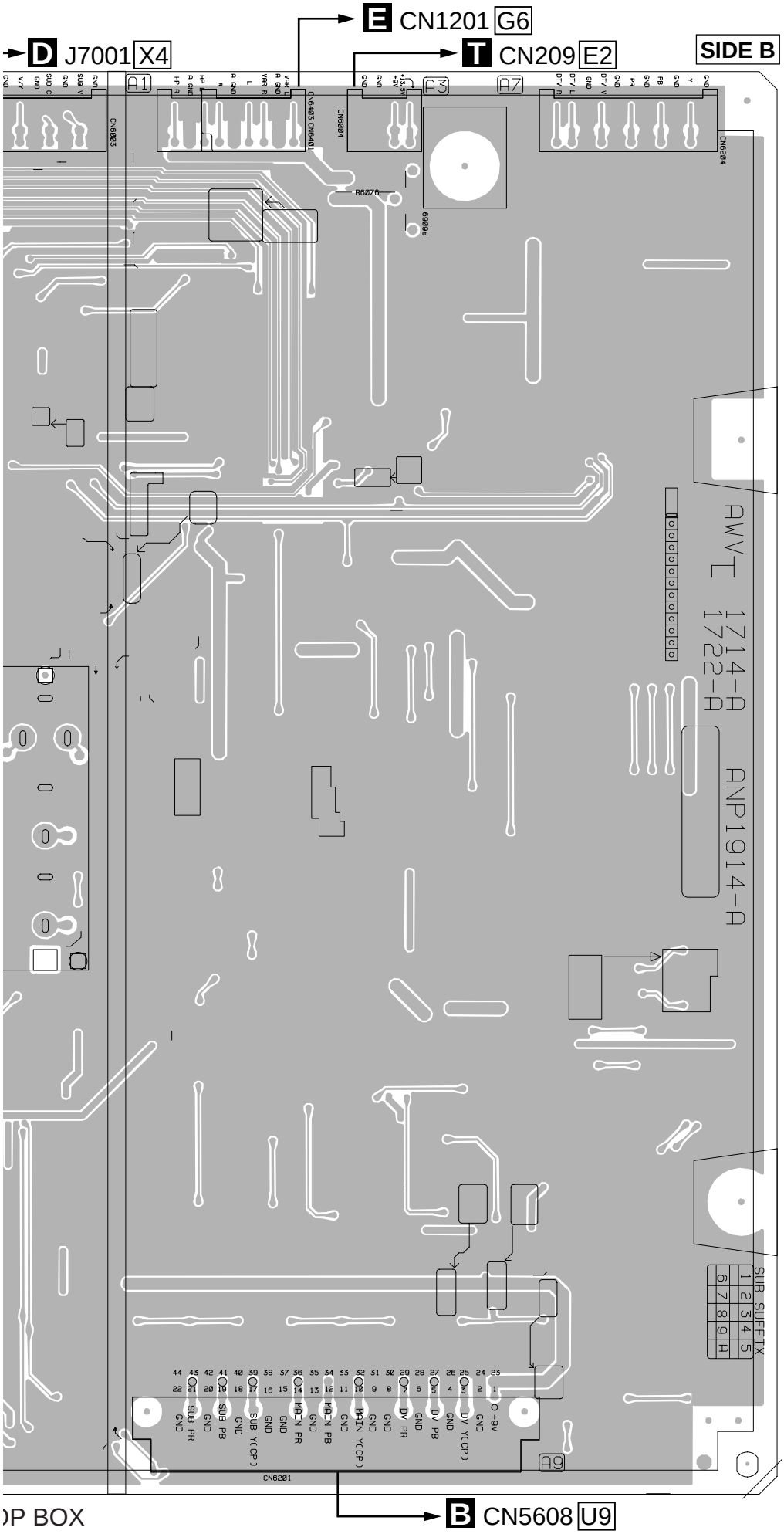


Q6416 Q6039 Q6404 IC6401 Q6410 Q6015 Q6020 Q6417 Q6235 IC6403 Q6236 Q6216 IC6201 Q6220 Q6258 Q6212 Q6257 Q6256 Q6222
Q6415 Q6033 Q6403 IC6002 Q6409 Q6004 Q6019 Q6418 Q6253 Q6213 Q6237 Q6254 Q6218 Q6219 Q6227 Q6246 Q6228 Q6225 Q6224
Q6034 IC6402 Q6031 Q6025 Q6037 Q6014 Q6017 Q6408 Q6247 Q6214 Q6255 IC6203 Q6217 Q6221 Q6229 Q6241 Q6232 Q6226 Q6242
Q6035 Q6038 Q6006 Q6036 Q6010 Q6003 Q6016 Q6405 Q6050 Q3215 Q6248 Q6252 Q6251 Q6201 Q6230 Q6231 Q6243
Q6007 IC6003 Q6005 Q6024 Q6029 Q3013 Q6018 Q6407 Q6045 Q6233 Q6049 Q6249 Q6238 Q6204 Q6202 Q6234
Q6040 Q6032 Q6022 Q6413 Q6008 Q6406 Q6234 Q6046 Q6048 Q6250 Q6206 Q6203
Q6041 IC6001 Q6002 Q6042 Q6044 Q6047 Q6412 Q6208 Q6205
Q6030 Q6259 Q6011 Q6043 Q6210 Q6207
Q6012 Q6260 Q6023 Q6244 Q6209
Q6261 Q6021 Q6239 Q6211
Q6001 Q6411 Q6245
Q6027 IC6202
Q6028 Q6240
Q6414

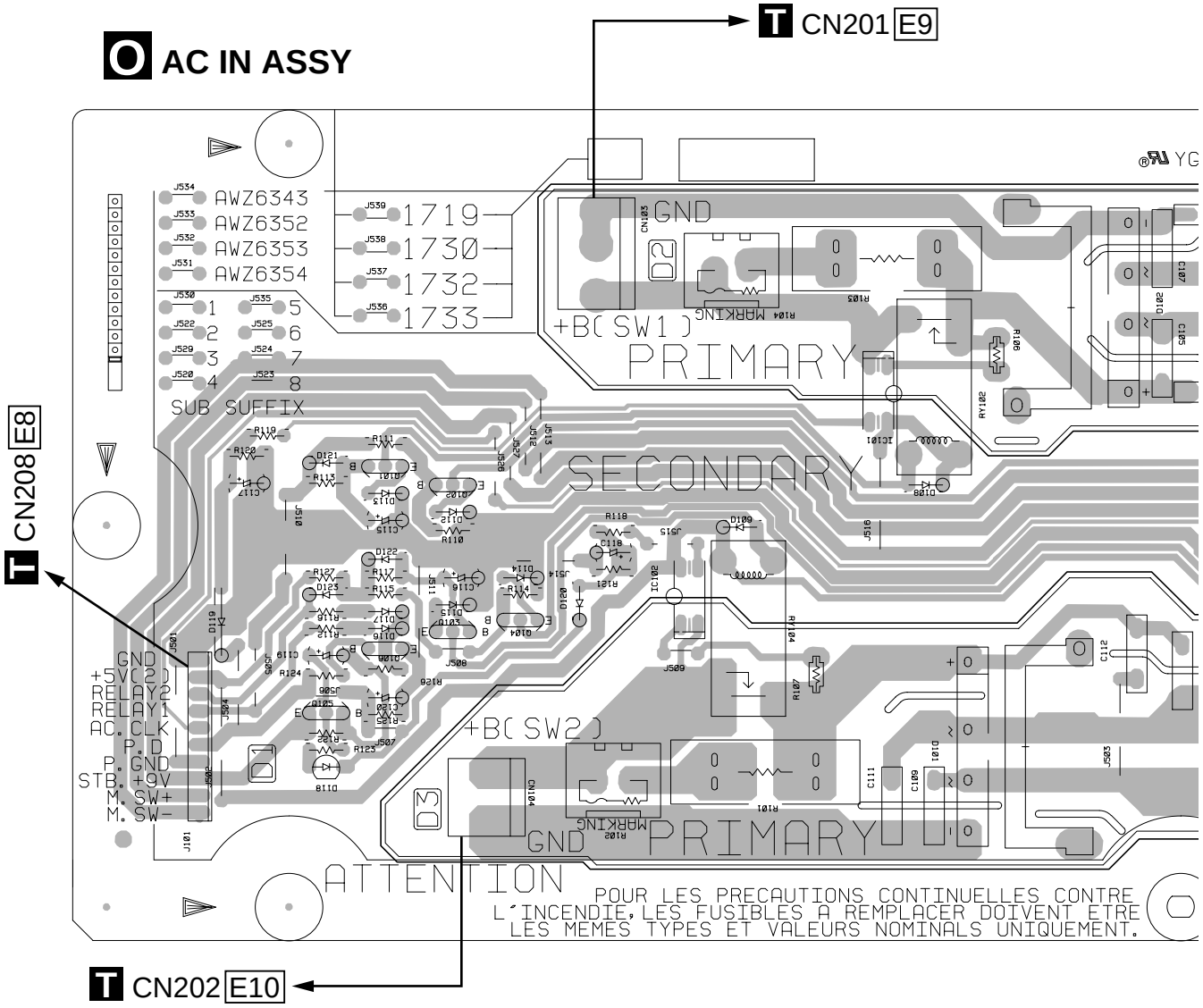
SIDE A



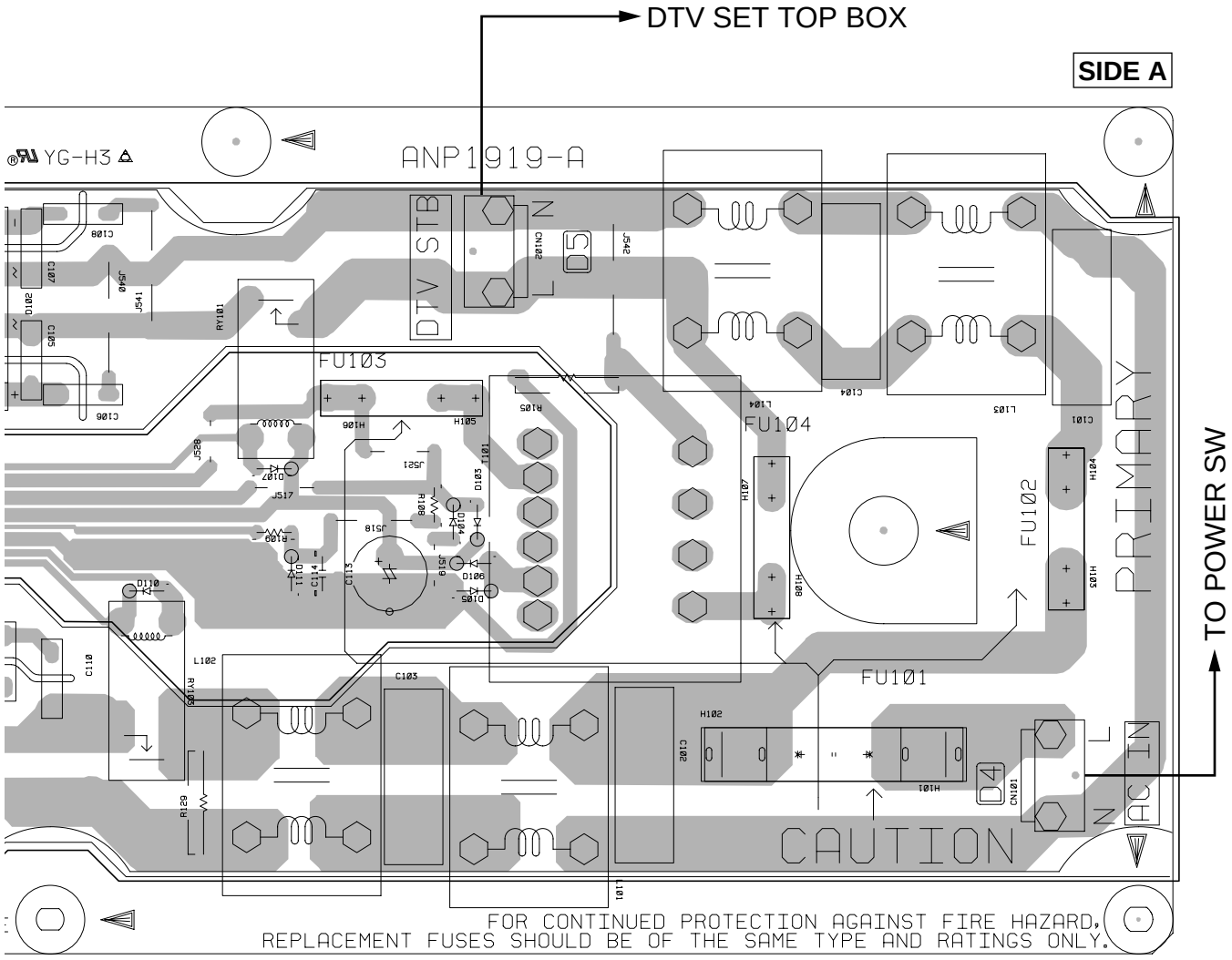

N AV I/O ASSY
I CN5041 F1
A J2703 T9
D
H J5025 V3
A2
A5
A4
A6
A8
CN6001
CN6008
CN6002
CN6009
CN6006
CN6007
CN6010
CN6202
CN6404
DTV SET TOP BO


E CN1201 G6
D J7001 X4
T CN209 E2
SIDE B
B CN5608 U9
AWVL 1714-A 1722-A ANP1914-A
SUB SUFFIX

4.12 AC IN ASSY

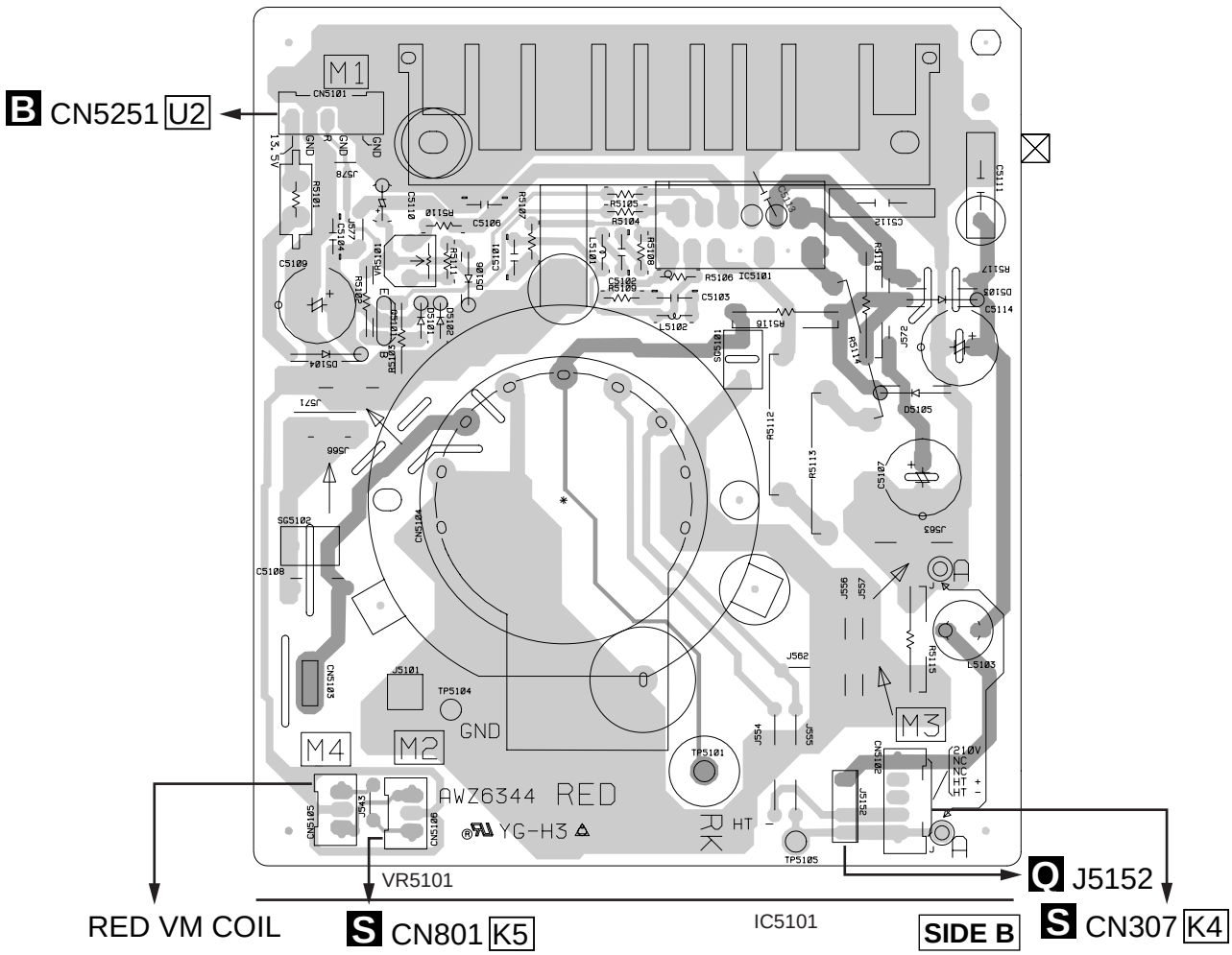


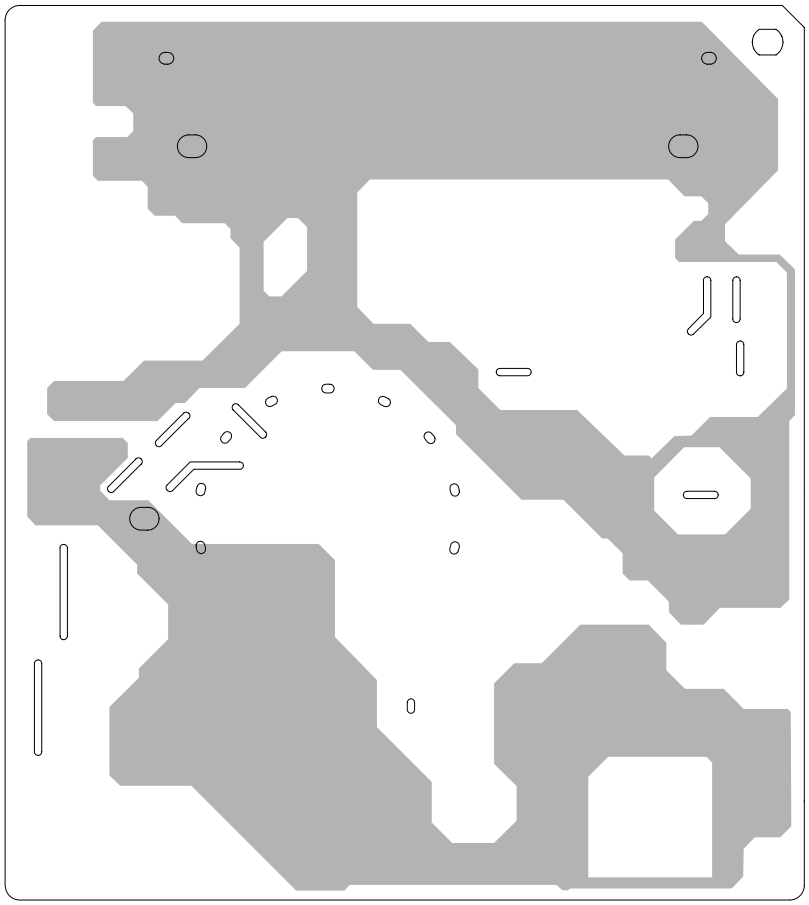
Q105 Q101 Q102 Q104 IC102 IC101
Q106 Q103


DTV SET TOP BOX
SIDE A
ANP1919-A
YG-H3
DTV STB
CN102
J542
FU103
FU104
FU102
FU101
PRIMARY
TO POWER SW
AC IN
CN101
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.

P R CRT DRIVE ASSY

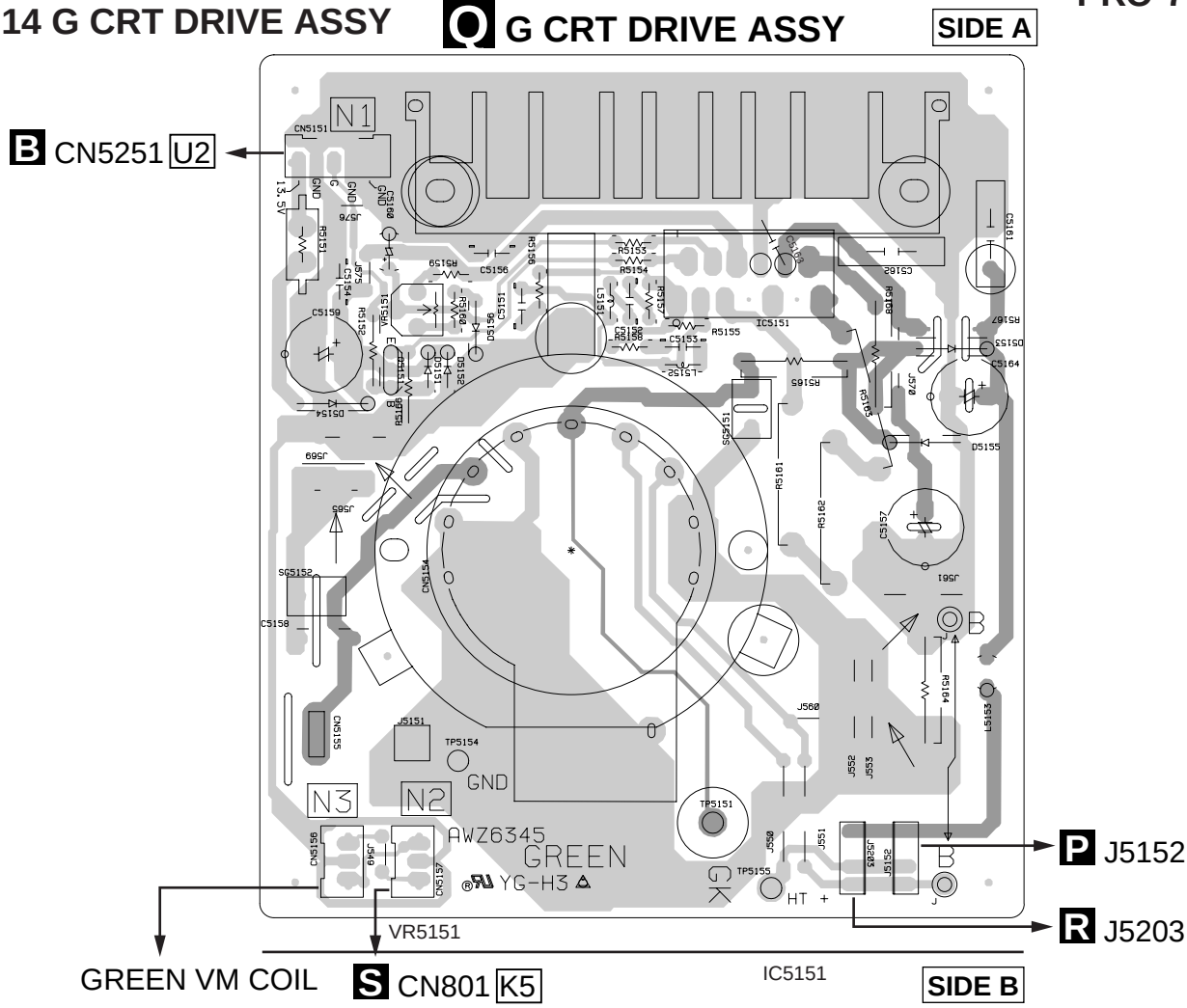
SIDE A





mark shows a high voltage generation point.

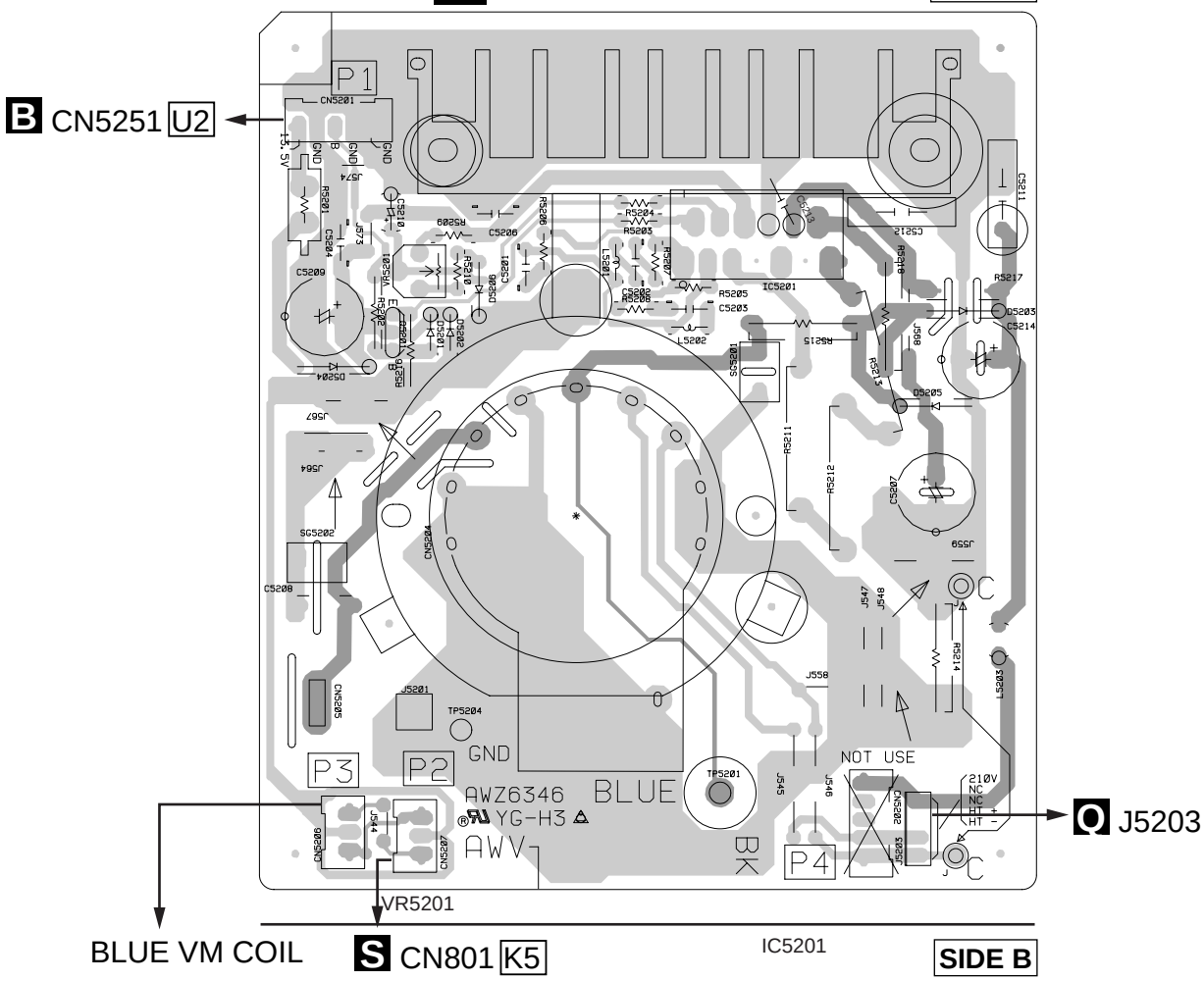
4.14 G CRT DRIVE ASSY



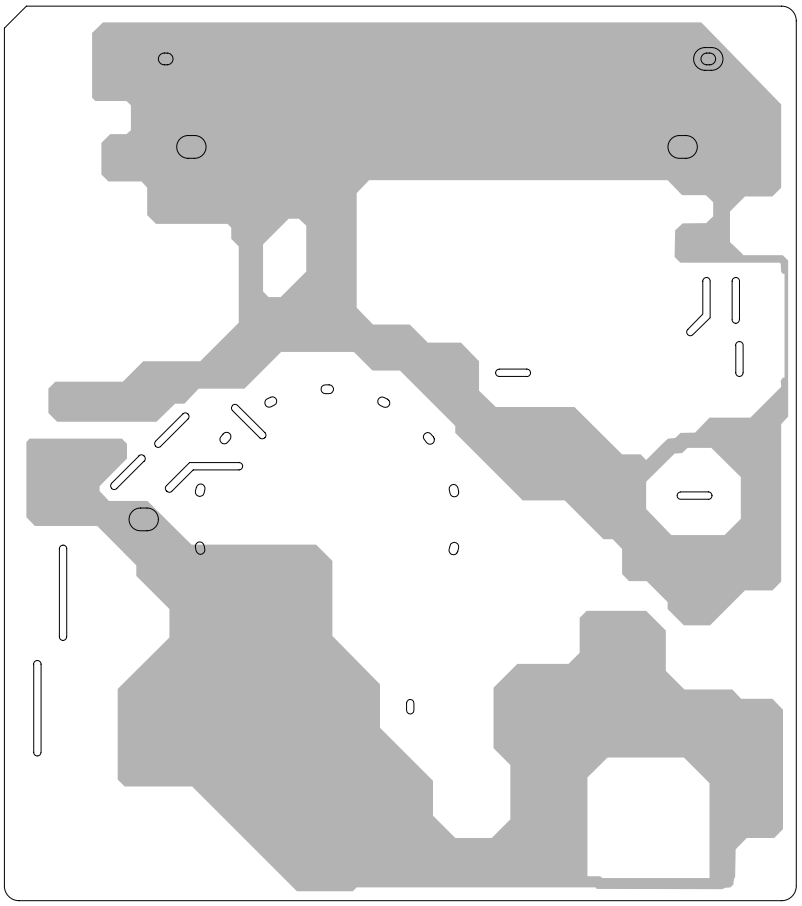
mark shows a high voltage generation point.

R B CRT DRIVE ASSY

SIDE A



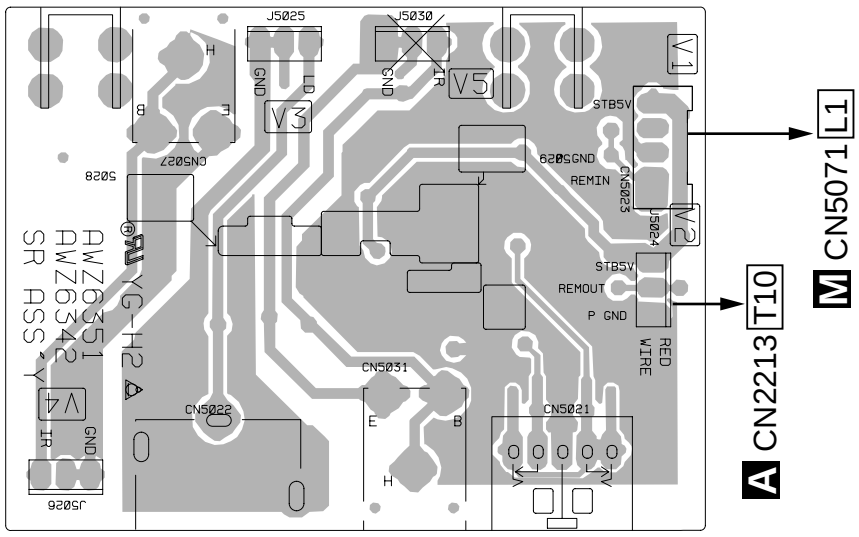
SIDE B



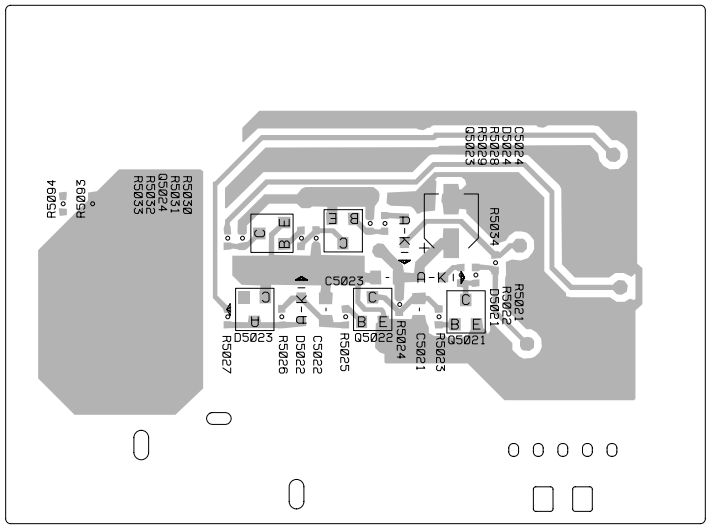
mark shows a high voltage generation point.

4.16 SR BNC ASSY, R CRT DRIVE ASSY

H SR BNC ASSY **SIDE A**

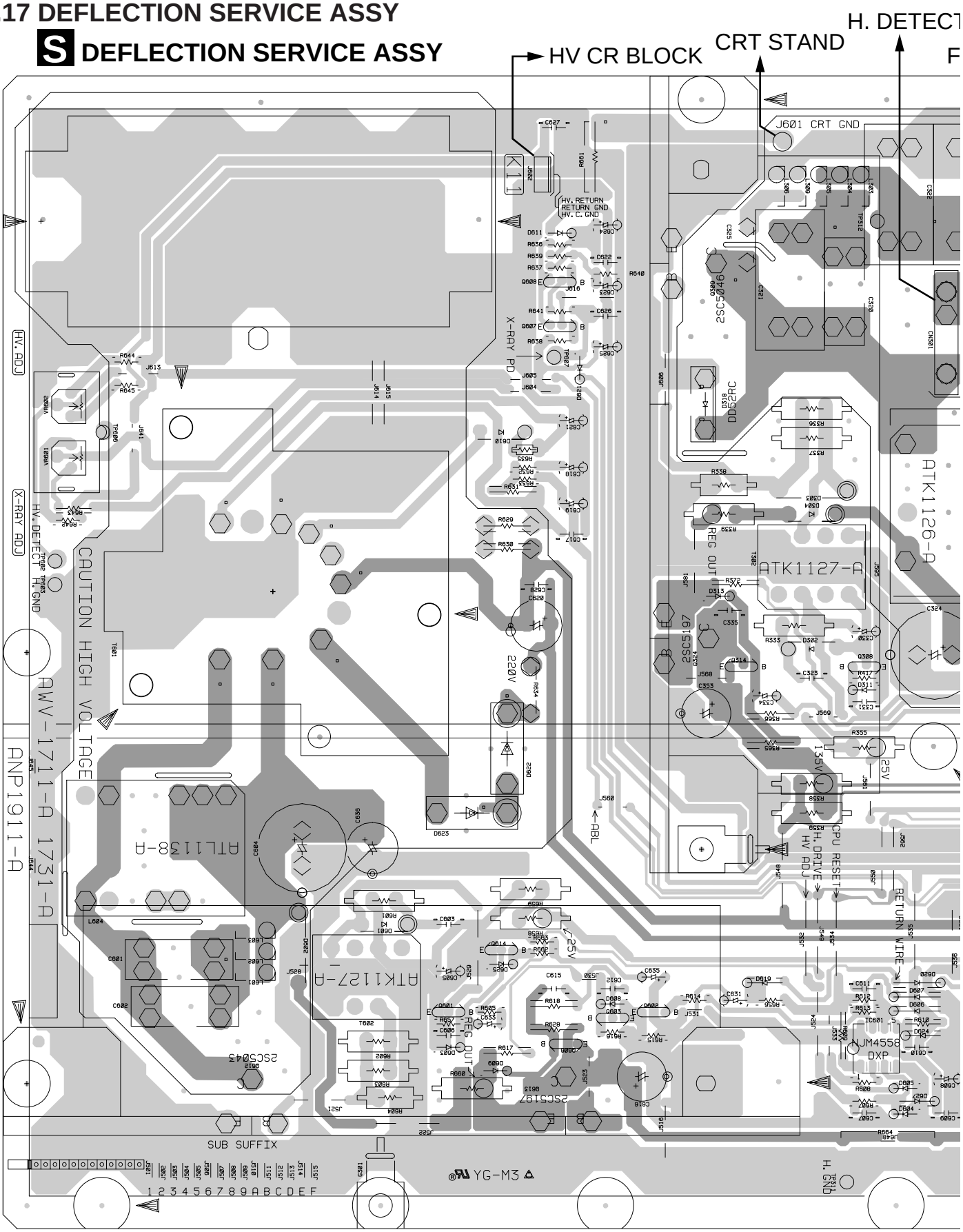


H SR BNC ASSY **SIDE B**



4.17 DEFLECTION SERVICE ASSY

S DEFLECTION SERVICE ASSY



VR601 VR602

T CN120

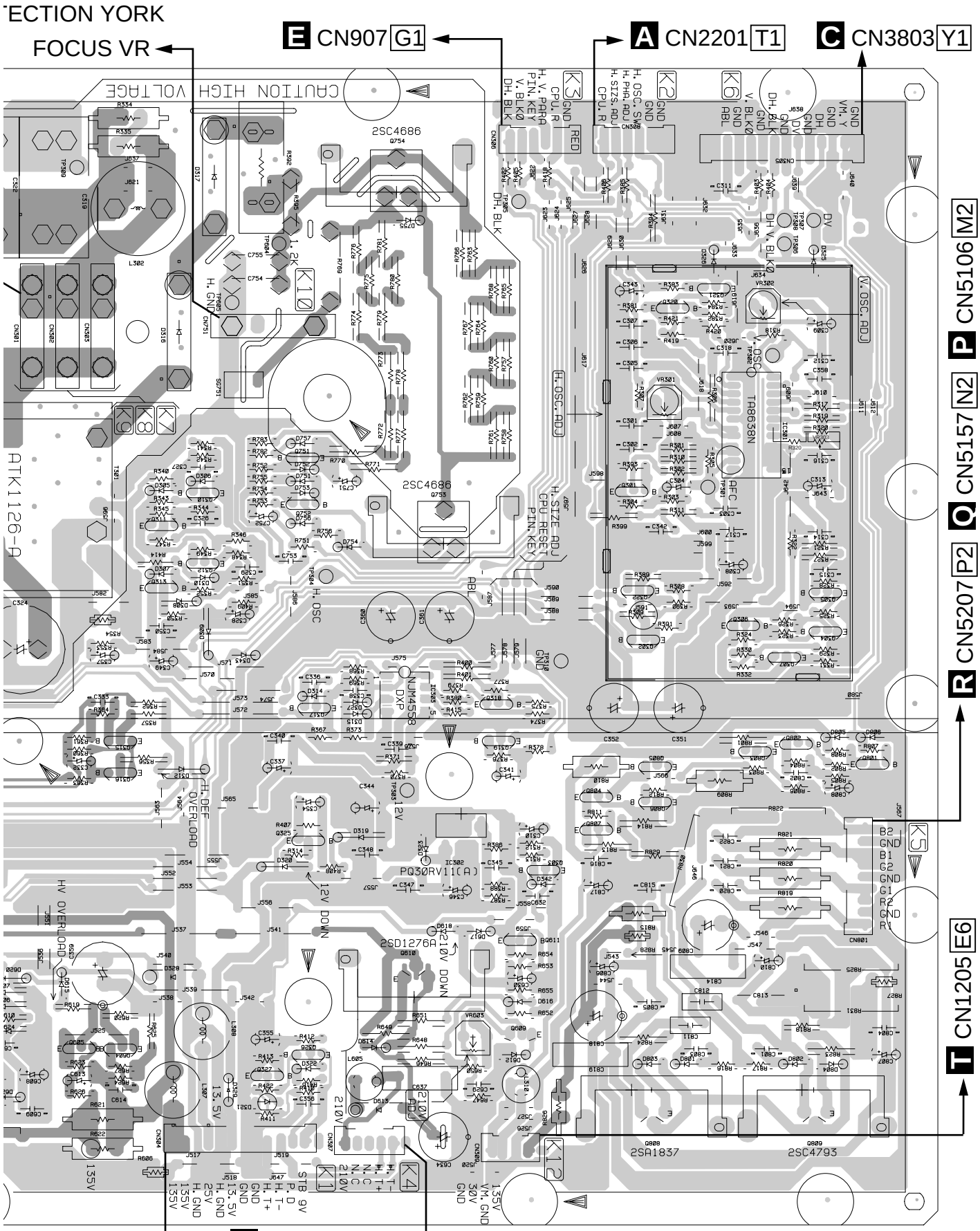
Q612

Q601 Q614 Q608 Q607 Q606 Q613

Q603 Q602 Q324 Q314 Q309

Q308 IC601

mark shows a high voltage generation point (excepting the charged section).

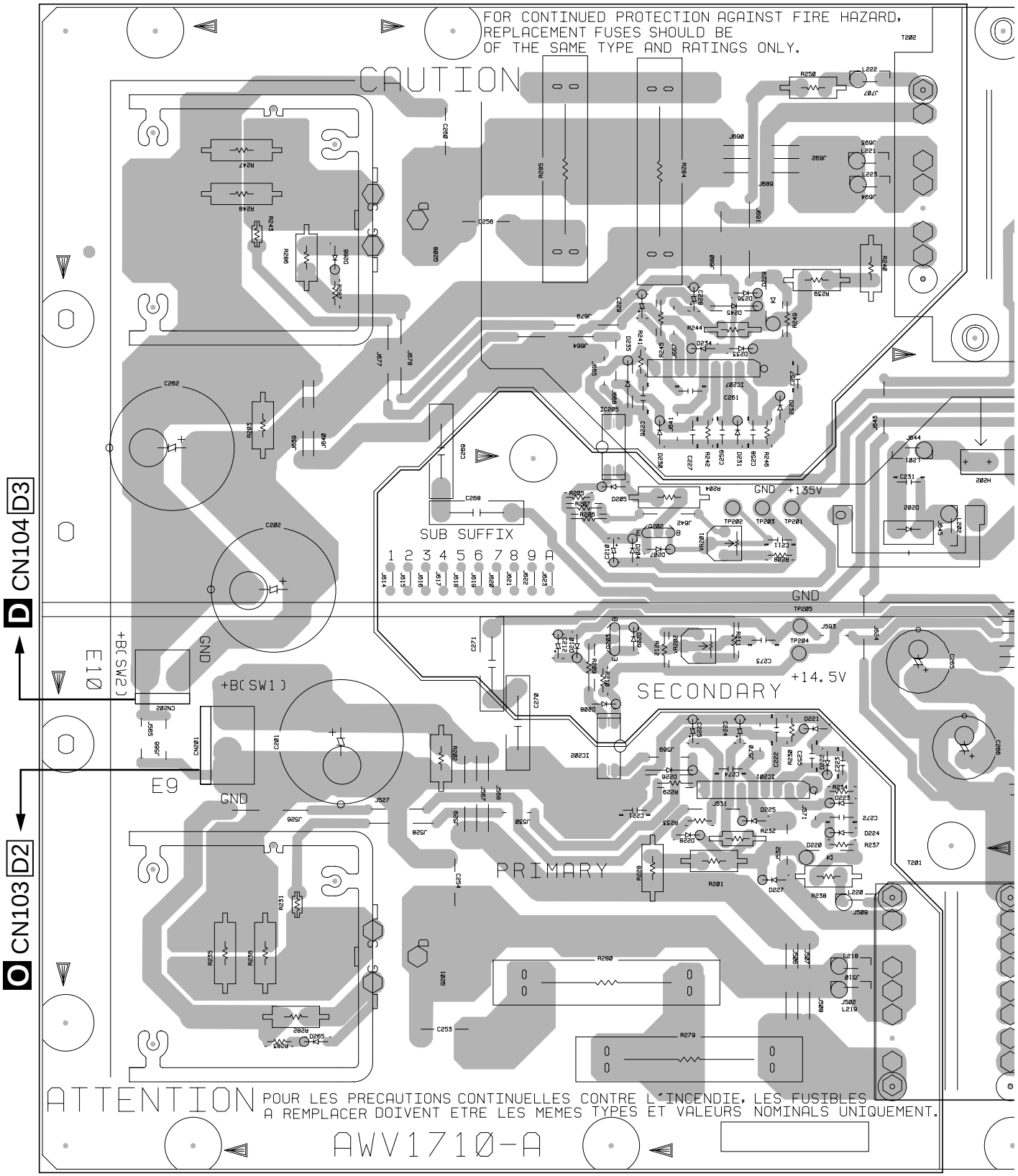


VR603 VR301 VR302

Q605 Q315 Q311 Q310 Q751 Q326 Q754 IC302 Q318 Q303 Q301 Q320 IC301 Q307 Q305
Q316 Q313 Q312 Q752 Q753 Q319 Q611 Q804 Q322 Q306 Q308 Q304
Q604 Q317 IC303 Q609 Q807 Q805 Q308 Q801
Q325 IC302 Q806 Q809
Q327 Q610

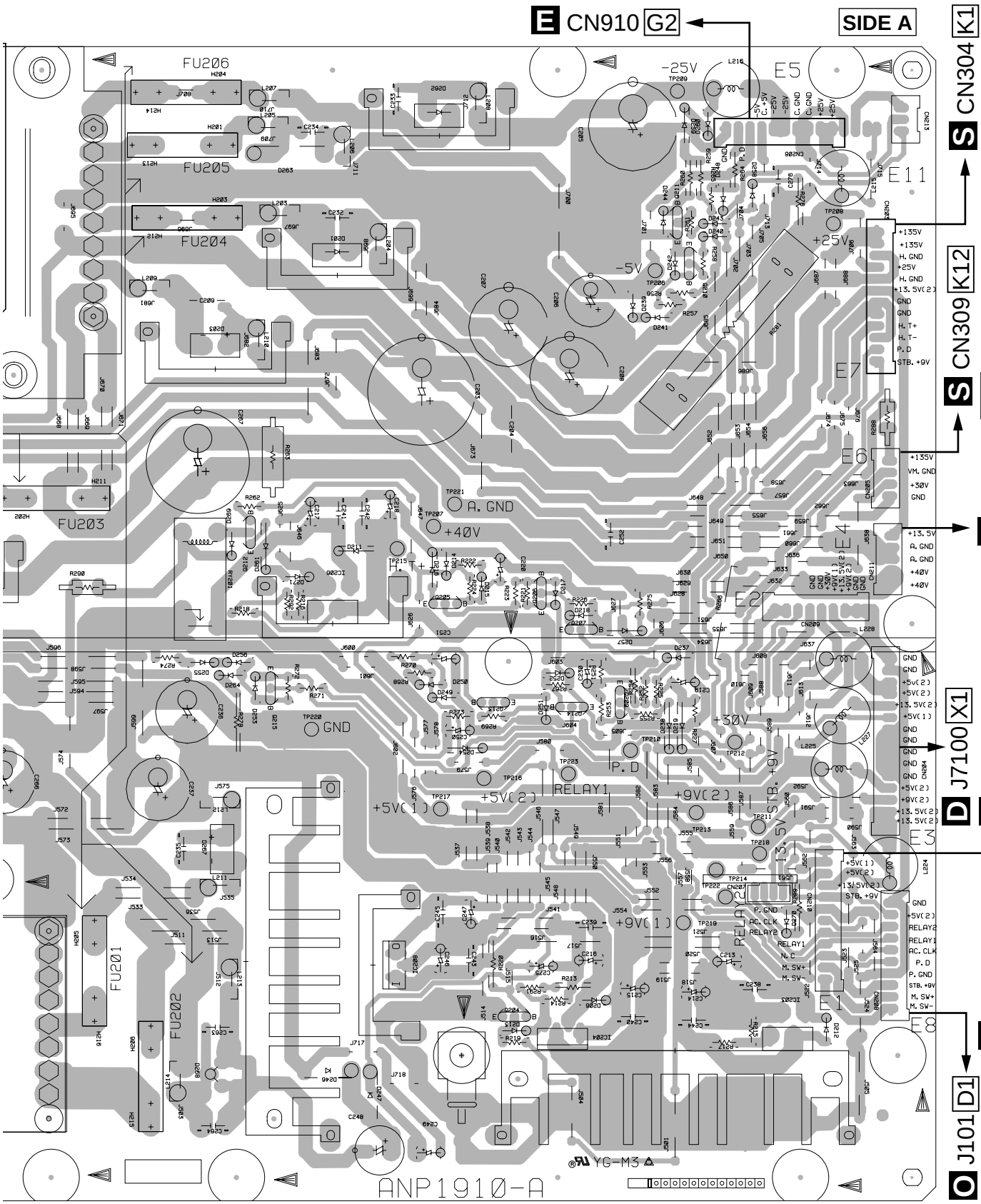
4.18 POWER SUPPLY ASSY

T POWER SUPPLY ASSY



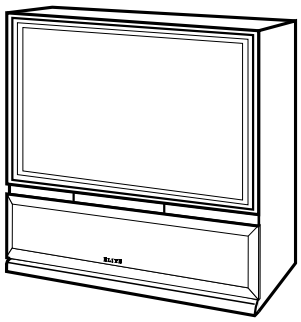
VR202 VR201

IC205 Q202 IC207
Q203 IC201
IC202



Q212 IC206 Q205 Q213 Q206 Q207 Q211 Q210 IC203
Q215 IC208 Q204 Q214 Q209
IC204

Service Manual



ORDER NO.
ARP3024

PROJECTION MONITOR RECEIVER

PRO-700HD

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PRO-700HD		
KUXC/CA	◯	AC120V	————

- **The PRO-700HD service manual is composed of ORDER NO. ARP3024 and ORDER NO. ARP3013. Use these two manuals as one set. For other details, refer to the separate manual (ORDER NO.ARP3013).**

CONTENTS

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

O- SZG DEC. 1998 Printed in Japan

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F
●*Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
●*Parts marked by × are important parts which relate in X-rays radiation. If a failure occurs in any of these parts, replace the printed circuit board assembly where the relevant part has already been adjusted as a working component. Do not replace the actual part itself. If any part marked by × is replaced, there is danger of being exposed to X-rays.*

Mark	No.	Description	Part No.
LIST OF ASSEMBLIES			
		POWER SUPPLY ASSY	AWV1710
☆		DEFLECTION SERVICE ASSY	AWV1731
		AMP ASSY	AWV1712
NSP		CONV.DAC ASSY	AWV1713
		├CONVER.DAC ASSY	AWZ6333
		├CONNECTOR ASSY	AWZ6335
		├FRONT CONTROL ASSY	AWZ6337
		├LED DPO ASSY	AWZ6338
		├FRONT INPUT ASSY	AWZ6339
		├SR ASSY	AWZ6340
		├POWER SW ASSY	AWZ6341
		└SR BNC ASSY	AWZ6342
		AV I/O ASSY	AWV1714
		TUNER u-COM ASSY	AWV1715
		VIDEO ASSY	AWV1716
		SIGNAL ASSY	AWV1717
NSP		AC IN, CRT SERVICE ASSY	AWV1732
		├AC IN ASSY	AWZ6353
		├R CRT DRIVE ASSY	AWZ6344
		├G CRT DRIVE ASSY	AWZ6345
		└B CRT DRIVE ASSY	AWZ6346
		SUB VIDEO ASSY	AWV1718
		TV FRONT END SYSTEM UNIT	AXF1084
		RF SW	AXF1098
T POWER SUPPLY ASSY			
SEMICONDUCTORS			
⚠	IC201 ,IC207		AN8029
	IC208		NJM7809FA
	IC202 ,IC205		ON3171-Q
	IC203 ,IC206		PQ30RV11(A)
	IC204		PQ30RV31
	Q206 ,Q207 ,Q209 ,Q214 ,Q215		2SA933S
	Q204 ,Q205 ,Q210 -Q213		2SC1740S
	Q202 ,Q203		2SC2705
⚠	Q201 ,Q208		2SK1938-R
	D220 ,D229 ,D246 ,D247		10DF2
	D205 -D209 ,D211 -D213		1SS254
	D215 -D219 ,D238 ,D240 -D244		1SS254
	D248 ,D250 -D254 ,D256 -D259		1SS254
	D261 ,D264 ,D269 ,D271		1SS254
	D268		D10SC4M
	D203		D3L60
	D267		D5S9M
	D263		ERB93-02L3
	D228 ,D245 ,D260		HZS18L
	D204 ,D210 ,D237 ,D239		HZS6C2L
	D225 ,D234 ,D265 ,D266		MA723
	D227 ,D236		MTZJ20
	D226 ,D235		RD12ESB
	D214 ,D221 -D224 ,D230 -D233		RD5.1ESB
	D249 ,D255		RD5.1ESB
	D201 ,D202 ,D262		YG911S2R
COILS AND FILTERS			
	L215 ,L216 ,L224 ,L225		ATH-059
	L227 ,L228, L229		ATH-059
	L218 ,L221 ,L223		ATX1021
TRANSFORMERS			
⚠	T201		ATK1124
⚠	T202		ATK1125
SWITCHES AND RELAYS			
	RY201		ASR1050
CAPACITORS			
	C268, C270, C271	(4700pF/250V)	ACE1105
	C209	(100pF/2000V)	ACG-032
	C254	(1500pF/2000V)	ACG1007
	C260	(3300pF/2000V)	ACG1008
	C253 ,C256, C277, C278	(4700pF/2000V)	ACG1028
	C203	(560µF/160V)	ACH1146
	C201 ,C202 ,C262	(820µF/200V)	ACH1148
	C267	(3300µF/16V)	ACH1313
	C269	(6800pF/250V)	ACE1108

Mark	No.	Description	Part No.
	C234		CCCSL221J50
	C231	-C233 ,C235 ,C263 ,C264	CCCSL221K2H
	C213	-C219 ,C230 ,C246 ,C247	CEHAT100M50
	C250		CEHAT100M50
	C220 ,C251		CEHAT101M10
	C224 ,C228		CEHAT101M25
	C206		CEHAT102M10
	C275		CEHAT102M6R3
	C210 ,C212 ,C225 ,C229		CEHAT1R0M50
	C248		CEHAT221M50
	C207 ,C208		CEHAT222M35
	C265 ,C266		CEHAT332M10
	C236 ,C237		CEHAT332M16
	C205		CEHAT332M35
	C249		CEHAT470M50
	C252		CFTXA104J50
	C238	-C245 ,C276	CKCYB103K50
	C257		CKCYB331K50
	C272		CKCYB471K50
	C204		CKCYE103P2H
	C261 ,C274		CKDYB103K50
	C223		CQMA102J50
	C211		CQMA103J50
	C258		CQMA182J50
	C221 ,C226		CQMA333J50
	C255		CQMA392J50
	C259		CQMA472J50
	C222 ,C227		CQMA473J50
	C273		CQMA823J50
RESISTORS			
	R232 ,R244 ,R288		RD1/2MMF100J
	R290		RD1/2MMF181J
	R209		RD1/2PM271J
	R231 ,R243		RD1/4MUF681J
	R206 ,R207		RN1/4PC1603F
	R291		RN1/4PC2001F
	R292		RN1/4PC2200F
	R217		RN1/4PC2701F
	R218		RN1/4PC3301F
	R208 ,R211		RN1/4PC3601F
	R213		RN1/4PC3602F
	R215		RN1/4PC3900F
	R212 ,R214		RN1/4PC3901F
	R216		RN1/4PC8200F
	R286		RS1MMF151J
	R238 ,R250		RS1MMF220J
	R282		RS1MMF221J
	R201 ,R228 ,R239 ,R240		RS1MMF333J
	R202 ,R203		RS1MMF473J
	R204		RS2MMF223J
	R263		RS2MMF472J
	R247 ,R248		RS2MMFR22J
	R235 ,R236		RS2MMFR56J
	R266		RS3LMF391J
	R279 ,R280 ,R284 ,R285		RT10PZ120K
	R281		RT10PZ390K
	VR201		VRTHS6VS102
	VR202		VRTHS6VS471
	Other Resistors		RD1/4PU□□□J
OTHERS			
	8010	SCREW	ABA1228
	CN202	PLUG 2-P	AKM1127
	CN201	PLUG 3-P	AKM1128
	H201	-H206 ,H211 -H216	AKR1003
	201	SW HEAT SINK	ANH1505
	8011	SCREW	BBZ30P080FCU
	8012	SCREW	BMZ30P100FZK
	CN208	PLUG 10-P	KM250MA10
	CN206	PLUG 10-P	KM250MA10B
	CN210	PLUG 11-P	KM250MA11B
	CN203	PLUG 12-P	KM250MA12R
	CN204	PLUG 15-P	KM250MA15
	CN205	PLUG 4-P	KM250MA4
	CN211	PLUG 5-P	KM250MA5
	CN209	PLUG 8-P	KM250MA8
⚠	FU205	FUSE 2.5A/125V	REK1079
⚠	FU203	FUSE 4A/125V	REK1082
⚠	FU204 ,FU206	FUSE 5A/125V	REK1083
⚠	FU201 ,FU202	FUSE 6.3A/125V	REK1085

E AMP ASSY

SEMICONDUCTORS

	IC907	CA0007AD
	IC1171	CXA1315P
	IC906 ,IC908 ,IC909	M5220P
	IC912	M5223AP
	IC1205	MC14066BCP
	IC905	NJM072BD-E
	IC1204	NJM2187L
	IC1203 ,IC1210	NJM4558LD
	IC901	NJM7805FA
	IC902	NJM79M05FA
	IC903 ,IC904	STK392-040
	IC1202	STK4412
	IC910	TC4052BP
	IC911 ,IC913	TC74HC4538AP
	IC1201	UPC1853CT-01
	Q1131 ,Q1140 ,Q1205 ,Q1219 ,Q1225	2SA933S
	Q902 ,Q904 -Q906 ,Q909 ,Q911	2SA933S
	Q923	2SA933S
	Q1133	2SB950A
	Q1132 ,Q1135 -Q1139 ,Q1206 ,Q1208	2SC1740S
	Q1218 ,Q1220	2SC1740S
	Q1222 -Q1224 ,Q1226 ,Q901 ,Q903	2SC1740S
	Q907 ,Q908 ,Q910 ,Q912 -Q916	2SC1740S
	Q921 ,Q922 ,Q924	2SC1740S
	Q1171	2SC2235
	Q1202 ,Q1203	2SC2878
	Q1134	2SD1276A
	D1131 ,D1133 -D1136 ,D1171 -D1174	1SS254
	D1183 ,D1201 ,D1204 -D1209	1SS254
	D1212 -D1214 ,D1218 ,D1226 -D1229	1SS254

Mark	No.	Description	Part No.
	D1239 -D1242 ,D1244 ,D1246 -D1248		1SS254
	D921 -D924 ,D926 -D929		1SS254
	D934 -D936 ,D938 -D941		1SS254
	D1132 ,D1219		BR3371XJ30A
	D1184		HZS9C1L
	D1210 ,D1211 ,D1223 ,D1224		MTZJ15
	D1233 ,D1234 ,D1245		MTZJ15
	D1203		MTZJ5.1
	D1175 ,D1178 ,D1179 ,D1181 ,D1182		RD12ESB
	D913 -D920 ,D925 ,D930 -D933		RD12ESB
	D937		RD12ESB
	D901 -D912		S5688G
	TH901		NTH4G42B104F01
CAPACITORS			
	C929 ,C983 ,C984 ,C988		CCCSL101J50
	C1133 ,C1134 ,C1139		CCCSL151J50
	C1001 ,C1003 ,C916 ,C918 ,C920		CCCSL220J50
	C987 ,C999		CCCSL220J50
	C1136		CEANP100M35
	C1223 ,C1224		CEANP220M16
	C1235 ,C1236 ,C1276 ,C954 ,C955		CEHAT100M50
	C961 -C971 ,C973 ,C993		CEHAT101M10
	C901 ,C905		CEHAT101M16
	C1252 ,C1277		CEHAT101M25
	C1007 ,C1008 ,C909 ,C912		CEHAT101M35
	C921 ,C922 ,C925 ,C926		CEHAT101M35
	C1255		CEHAT101M50
	C1210 ,C1280		CEHAT1R0M50
	C1211 ,C1257 ,C1274 ,C1275		CEHAT220M50
	C1138 ,C1140 ,C1266 ,C1267		CEHAT221M35
	C1284 ,C1286		CEHAT222M50
	C1208 ,C1209 ,C989		CEHAT2R2M50
	C910 ,C914 ,C923 ,C928		CEHAT331M35
	C902 ,C907		CEHAT331M6R3
	C1260 ,C1263		CEHAT332M35
	C1212 ,C1213		CEHAT3R3M50
	C1137 ,C1172 ,C1173 ,C1175 ,C1201		CEHAT470M25
	C1215 ,C1227 ,C1247 ,C1288		CEHAT470M25
	C1299 -C1301 ,C932		CEHAT470M25
	C1254 ,C1256		CEHAT470M50
	C1205		CEHAT471M10
	C1202 ,C1203		CEHAT4R7M50
	C1204 ,C1279		CEHATR10M50
	C1258 ,C1259		CES41R0KJ
	C941		CFTXA104J50
	C1307 ,C1308 ,C944		CFTXA105J50
	C1242 ,C1244		CFTYA103J50
	C1262 ,C1265		CFTYA104J50
	C1243 ,C1246		CFTYA224J50
	C1131 ,C1132 ,C1135		CKCYB102K50
	C1297 ,C1298		CKCYB122K50
	C995		CKCYB222K50
	C1004 -C1006 ,C979 -C981		CKCYB331K50
	C1225 ,C1226		CKCYB471K50
	C1000 ,C1002 ,C915 ,C917 ,C919		CKCYB681K50
	C998		CKCYB681K50

Mark	No.	Description	Part No.
	C1009 ,C1010 ,C1141 -C1144 ,C1171		CKCYF103Z50
	C1174 ,C1206 ,C1217 ,C1228 ,C1239		CKCYF103Z50
	C1248 ,C1250 ,C1251 ,C1253 ,C1278		CKCYF103Z50
	C1287 ,C1305 ,C1306 ,C903 ,C904		CKCYF103Z50
	C906 ,C908 ,C911 ,C913 ,C924		CKCYF103Z50
	C927 ,C930 ,C931 ,C933 -C939		CKCYF103Z50
	C945 ,C949 -C951 ,C956 -C960		CKCYF103Z50
	C972 ,C974 ,C975 ,C982 ,C992		CKCYF103Z50
	C1292		CQMA102J50
	C1011 ,C946		CQMA103J50
	C1218 -C1220		CQMA104J50
	C947		CQMA152J50
	C1290		CQMA222J50
	C1291 ,C1294		CQMA223J50
	C1240 ,C1241 ,C1245 ,C976 ,C977		CQMA472J50
	C1296		CQMA681J50
	C1293 ,C1295		CQMA682J50
	C948		CQMA821J50
	C1207		CQMA823J50
	C994		CQPA471J2A
	C978		CQPA472J2A
	C942		CQPA561F2A
	C990 ,C991		CQPA561J2A
RESISTORS			
	R1318		RD1/2MMF101J
	R1392		RD1/2PM103J
	R1324 ,R1328		RD1/2PM152J
	R1325 ,R1329		RD1/4MUF4R7J
	R969 ,R976 ,R985		RN1/4PC1001F
	R974		RN1/4PC1302F
	R970		RN1/4PC1303F
	R971		RN1/4PC2002F
	R981 ,R982		RN1/4PC2200F
	R980		RN1/4PC2201F
	R1057		RN1/4PC3001F
	R973		RN1/4PC4702F
	R983		RN1/4PC5101F
	R984		RN1/4PC6802F
	R1089 -R1092 ,R905 ,R906		RS1MMF101J
	R921 ,R922		RS1MMF101J
	R1190 ,R1244		RS1MMF220J
	R1033 ,R1034 ,R902		RS1MMF470J
	R1132		RS1MMF562J
	R907 ,R908 ,R923 ,R924		RS1MMFR47J
	R1153		RS2MMF1R2J
	R1046 ,R1073 ,R1074 ,R1084 ,R1085		RS2MMF1R5J
	R1131 ,R1145		RS2MMF2R2J
	R1151 ,R1152		RS2MMFR47J
	R1028 ,R1030 ,R1032		RS3LMF101J
	R1205 ,R1399		RS3LMF1R0J
	R1088		RS3LMF1R5J
	R1029 ,R1031 ,R903		RS3LMF560J
	R901		RS3LMF6R8J
	Other Resistors		RD1/4PU□□□J

Mark	No.	Description	Part No.
OTHERS			
	1202 ,903	SCREW	BBZ30P080FCU
	CN905 ,CN906	15P PLUG	KM200IA15
	CN908	PLUG 10-P	KM250MA10
	CN910	PLUG 10-P	KM250MA10B
	CN1205	PLUG 4-P	KM250MA4
	CN1206	PLUG 5-P	KM250MA5
	CN1201,CN901	PLUG 6-P	KM250MA6
	CN902	PLUG 6-P	KM250MA6B
	CN903 ,CN907	PLUG 6-P	KM250MA6R
	CN1202	PLUG 8-P	KM250MA8
	CN904	PLUG 9-P	KM250MA9B
	1203 ,901	SCREW	PMB30P160FZK
	1131 ,902	SCREW	PMZ30P100FZK

F CONVER.DAC ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	R5094		RS1/16S0R0J
	IC1405,IC1406		MC14052BF
	IC1404		MC14066BF
	IC1401,IC1402		PA0053B
	IC1403,IC1408-IC1412		PM0011AS
	Q1401 ,Q1403 ,Q1405 ,Q1407		2SA1162
	Q1402 ,Q1404 ,Q1406 ,Q1408 -Q1410		2SC2712
	D1401 ,D1402 ,D1404 -D1406 ,D1408		1SS226
	D1410 -D1415 ,D1418 -D1421		1SS226
CAPACITORS			
	C1424 ,C1428 ,C1463 -C1466		CCSQCH101J50
	C1481 -C1493 ,C1495 ,C1496 ,C1499		CCSQCH101J50
	C1501 ,C1502 ,C1505 ,C1507 ,C1508		CCSQCH101J50
	C1536		CCSQCH101J50
	C1456		CCSQCH821J50
	C1455		CCSRCH331J50
	C1414 ,C1421 ,C1426 ,C1431 ,C1434		CEV100M16
	C1437		CEV100M16
	C1406		CEV101M16
	C1409 ,C1412 ,C1413 ,C1420 ,C1422		CEV101M6R3
	C1429 ,C1430 ,C1432 ,C1433		CEV101M6R3
	C1435 ,C1436 ,C1439 ,C1441 ,C1443		CEV101M6R3
	C1446 ,C1448 ,C1461 ,C1462 ,C1467		CEV101M6R3
	C1469 ,C1474 ,C1476		CEV101M6R3
	C1401 ,C1415		CEV1R0M50
	C1416		CEV220M16
	C1404 ,C1418		CEV330M10
	C1417		CEV470M16
	C1453		CEVR33M50
	C1402		CEVR47M50
	C1454		CFHSQ102J50
	C1405		CFTYA184J50
	C1407 ,C1411		CFTYA224J50
	C1408 ,C1410 ,C1419 ,C1423 ,C1425		CKSQYF104Z50
	C1427 ,C1438 ,C1440 ,C1442		CKSQYF104Z50
	C1444 ,C1445 ,C1447 ,C1449 -C1452		CKSQYF104Z50
	C1468 ,C1470 -C1473 ,C1475		CKSQYF104Z50
	C1477 -C1480 ,C1511 -C1525		CKSQYF104Z50

Mark	No.	Description	Part No.
RESISTORS			
	R1403 ,R1404 ,R1407 ,R1408 ,R1421		RS1/16S101J
	R1432 -R1436 ,R1457 -R1463		RS1/16S101J
	R1467 -R1472 ,R1494 -R1507		RS1/16S101J
	R1529 -R1542 ,R1564 -R1577 ,R1603		RS1/16S101J
	R1608 -R1614 ,R1618 -R1623 ,R1625		RS1/16S101J
	R1642 ,R1645 ,R1650 -R1656		RS1/16S101J
	R1660 -R1670 ,R1679 -R1685 ,R1688		RS1/16S101J
	R1690 ,R1698 ,R1731 ,R1736 ,R1743		RS1/16S101J
	R1748 ,R1772		RS1/16S101J
	R1401 ,R1405 ,R1420 ,R1422		RS1/16S102J
	R1437 ,R1438 ,R1482 ,R1517 ,R1552		RS1/16S102J
	R1588 ,R1629 ,R1734 ,R1735		RS1/16S102J
	R1746 ,R1747		RS1/16S102J
	R1442 ,R1464 ,R1509 ,R1544 ,R1579		RS1/16S103J
	R1615 ,R1624 ,R1627 ,R1657 ,R1689		RS1/16S103J
	R1692 ,R1697 ,R1700 ,R1705 ,R1708		RS1/16S103J
	R1713 ,R1716 ,R1721 ,R1724		RS1/16S103J
	R1406 ,R1448 -R1455 ,R1476 -R1481		RS1/16S104J
	R1489 ,R1490 ,R1492 ,R1493		RS1/16S104J
	R1513 -R1516 ,R1524 ,R1525		RS1/16S104J
	R1527 ,R1528 ,R1548 -R1551		RS1/16S104J
	R1559 ,R1560 ,R1562 ,R1563		RS1/16S104J
	R1583 -R1586 ,R1591 -R1600		RS1/16S104J
	R1604 -R1607 ,R1635 -R1640		RS1/16S104J
	R1646 -R1649 ,R1686 ,R1687 ,R1756		RS1/16S104J
	R1641 ,R1751		RS1/16S113J
	R1633 ,R1763		RS1/16S114J
	R1755 ,R1761 ,R1764 ,R1765		RS1/16S124J
	R1672 ,R1674 ,R1676 ,R1771		RS1/16S125J
	R1729 ,R1737 ,R1739		RS1/16S153J
	R1556		RS1/16S154J
	R1484 ,R1519 ,R1555		RS1/16S163J
	R1419 ,R1483 ,R1518 ,R1553 ,R1587		RS1/16S181J
	R1628		RS1/16S181J
	R1750		RS1/16S183J
	R1677 ,R1762 ,R1767		RS1/16S184J
	R1475 ,R1590 ,R1634		RS1/16S204J
	R1417 ,R1465 ,R1466 ,R1508		RS1/16S221J
	R1510 ,R1511 ,R1543 ,R1545 ,R1546		RS1/16S221J
	R1578 ,R1580 ,R1581 ,R1601		RS1/16S221J
	R1616 ,R1617 ,R1643 ,R1658 ,R1659		RS1/16S221J
	R1418 ,R1424 -R1431 ,R1512 ,R1547		RS1/16S222J
	R1582 ,R1602 ,R1644		RS1/16S222J
	R1439 ,R1440 ,R1443 ,R1444 ,R1554		RS1/16S223J
	R1730 ,R1738 ,R1768 ,R1769		RS1/16S223J
	R1474 ,R1744 ,R1745 ,R1766		RS1/16S274J
	R1521 ,R1754 ,R1773		RS1/16S304J
	R1447 ,R1626 ,R1691 ,R1699 ,R1707		RS1/16S333J
	R1715 ,R1723		RS1/16S333J
	R1520 ,R1757		RS1/16S334J
	R1491 ,R1526 ,R1561		RS1/16S363J
	R1759		RS1/16S364J
	R1486 ,R1678		RS1/16S394J
	R1485		RS1/16S433J
	R1409 -R1416		RS1/16S470J

Mark	No.	Description	Part No.
	R1671 ,R1696 ,R1704 ,R1712 ,R1720		RS1/16S471J
	R1728		RS1/16S471J
	R1441		RS1/16S473J
	R1760		RS1/16S474J
	R1423		RS1/16S512J
	R1446 ,R1630 -R1632 ,R1693 -R1695		RS1/16S562J
	R1701 -R1703		RS1/16S562J
	R1488 ,R1523 ,R1558 ,R1770		RS1/16S563J
	R1741		RS1/16S564J
	R1402 ,R1456		RS1/16S622J
	R1473		RS1/16S623J
	R1749		RS1/16S682J
	R1445 ,R1673 ,R1675		RS1/16S684J

G CONNECTOR ASSY

OTHERS

	J1801 ,J1802	JUMPER WIRE	D15A15-100-2651
	CN1803,CN1804	15P SOCKET	KP200IA15L

J FRONT CONTROL ASSY

SWITCHES AND RELAYS

	S5001 -S5008		ASG1034

CAPACITORS

	C5003		CEV101M6R3
	C5004 ,C5005		CKSQYF103Z50

RESISTORS

	R5014		RS1/16S101J
	R5012 ,R5019		RS1/16S102J
	R5015		RS1/16S181J
	R5018		RS1/16S222J
	R5016		RS1/16S301J
	R5013		RS1/16S470J
	R5017		RS1/16S561J
	R5020		RS1/16S622J

OTHERS

	J5001	7P HOUSING WIRE	ADX2500
	CN5001	PLUG 8-P	KM250MA8

K LED DPO ASSY

SEMICONDUCTORS

	Q5001 ,Q5005		2SA1162
	Q5002 -Q5004		2SC2712
	D5002		1SS181
	D5008		AEL1176
	D5007		AEL1177
	D5006		NSPWF50S-8038
	PC5001		P1241-09

CAPACITORS

	C5001		CEV100M16
	C5002		CEV330M25

RESISTORS

	R5001		RD1/2LMF820J
	R5011		RS1/16S102J
	R5035 ,R5036		RS1/16S103J
	R5005		RS1/16S152J
	R5002 ,R5003		RS1/16S222J
	R5061 ,R5062 ,R5064 ,R5065		RS1/16S223J
	R5007		RS1/16S273J
	R5010		RS1/16S334J
	R5008		RS1/16S562J
	R5004		RS1/2S821J
	VR5001		VRTS6VS473
	Other Resistors		RS1/10S□□□J

OTHERS

	5001	DPO HOLDER	AMR2294

I FRONT INPUT ASSY

SEMICONDUCTORS

	Q5041 ,Q5042		2SC2712
	D5041 ,D5042		RD15MB

CAPACITORS

	C5043 ,C5044		CEV1R0M50
	C5041		CEV470M16
	C5042 ,C5045		CKSQYF103Z50

RESISTORS

	R5043		RD1/4LMF101J
	R5052 ,R5053		RS1/16S221J
	R5054 ,R5055		RS1/16S222J
	R5046 ,R5049 -R5051		RS1/16S473J
	R5047 ,R5048		RS1/16S474J
	R5041 ,R5044 ,R5045		RS1/16S750J

OTHERS

	CN5042	PINJACK(3P) WITH SIN	AKB1261
	CN5041	PLUG 12-P	KM250MA13

M SR ASSY

CAPACITORS

	C5072		CCSQSL121J50
	C5071		CEV101M6R3

RESISTORS

	R5071		RS1/16S102J

OTHERS

	CN5071	PLUG 4-P	KM250MA4B
	X5071		GP1U28X

L POWER SW ASSY

SWITCHES AND RELAYS

	S5081		ASG1084

OTHERS

	CN5081	PLUG 3-P	KM250MA3

H SR BNC ASSY

SEMICONDUCTORS

	Q5023		2SA1162
	Q5021 ,Q5022 ,Q5024		2SC2712
	D5021 ,D5022 ,D5024		1SS352
	D5023		RD6.8MB

CAPACITORS

	C5024		CEV470M6R3
	C5021 ,C5023		CKSQYF103Z50
	C5022		CKSQYF472Z50

RESISTORS

	R5027 ,R5033		RS1/16S101J
	R5021 ,R5031		RS1/16S102J
	R5023 ,R5028		RS1/16S103J
	R5024 -R5026 ,R5030 ,R5032		RS1/16S223J
	R5029		RS1/16S224J

Mark	No.	Description	Part No.
	R5022		RS1/16S472J

OTHERS

	J5025	3P HOUSING WIRE	ADX2494
	J5024	3P HOUSING WIRE	ADX2499
	CN5021	JACK	AKN-209
	5022	CONNECTOR	AKX1002
	CN5023	PLUG 4-P	KM250MA4B

N AV I/O ASSY

SEMICONDUCTORS

IC6403		CXA1315M
IC6001		CXA2069Q
IC6401,IC6402		MC14066BF
IC6003		NJM2246M
IC6201-IC6203		TC74HC4053AF
Q6004 ,Q6012 ,Q6014 ,Q6015		2SA1162
Q6017 -Q6019 ,Q6022 ,Q6024 ,Q6025		2SA1162
Q6036 ,Q6038 -Q6040 ,Q6201		2SA1162
Q6203 ,Q6204 ,Q6206 ,Q6208 ,Q6210		2SA1162
Q6213 -Q6221 ,Q6223 ,Q6227		2SA1162
Q6229 ,Q6230 ,Q6404 ,Q6410 ,Q6412		2SA1162
Q6414 -Q6416		2SA1162
Q6001 -Q6003 ,Q6005 -Q6011 ,Q6013		2SC2712
Q6020 ,Q6021 ,Q6023 ,Q6027 -Q6033		2SC2712
Q6037 ,Q6041 -Q6047 ,Q6233 -Q6235		2SC2712
Q6238 -Q6261 ,Q6403 ,Q6405 -Q6409		2SC2712
Q6411 ,Q6413		2SC2712
Q6202 ,Q6205 ,Q6207 ,Q6209		2SC4213
Q6211 ,Q6212 ,Q6228 ,Q6231 ,Q6232		2SC4213
D6405 ,D6411 -D6413		1SS184
D6001 -D6022 ,D6024 ,D6025		1SS226
D6030 -D6032 ,D6035 -D6037		1SS226
D6201 -D6209 ,D6401 -D6404 ,D6406		1SS226
D6414 ,D6415		1SS226
D6023 ,D6033 ,D6034 ,D6039 ,D6040		1SS352
D6210 -D6215 ,D6407 ,D6408 ,D6410		1SS352
D6409		RD3.6MB

CAPACITORS

C6006 ,C6065 ,C6068 ,C6086 ,C6090	CEV100M16
C6228 ,C6251 ,C6260	CEV100M16
C6060 ,C6063 ,C6411 ,C6412	CEV101M6R3
C6058 ,C6062	CEV102M6R3
C6002 ,C6003 ,C6009 -C6014	CEV1R0M50
C6026 ,C6027 ,C6031 ,C6032	CEV1R0M50
C6036 ,C6037 ,C6042 ,C6044 -C6046	CEV1R0M50
C6084 ,C6085 ,C6406 ,C6409 ,C6410	CEV1R0M50
C6015 -C6017 ,C6024 ,C6028 ,C6029	CEV220M16
C6033 ,C6034 ,C6067 ,C6083 ,C6088	CEV220M16
C6092 ,C6094 ,C6201 -C6206	CEV220M16
C6208 -C6210 ,C6212 -C6217	CEV220M16
C6225 -C6227 ,C6262	CEV220M16
C6001 ,C6004 ,C6018 ,C6020 ,C6057	CEV470M16
C6074 ,C6076 ,C6077 ,C6079 ,C6080	CEV470M16
C6219 -C6222 ,C6235 ,C6237 ,C6242	CEV470M16
C6244 ,C6257 ,C6405 ,C6407 ,C6408	CEV470M16
C6414	CEV470M16
C6007 ,C6066 ,C6069 ,C6087 ,C6091	CEV4R7M35
C6229 ,C6252 ,C6259	CEV4R7M35
C6019 ,C6025 ,C6030 ,C6035	CEVNPR10M50
C6041 ,C6043 ,C6048	CEVR47M50
C6059 ,C6061	CKSQYB332K50
C6005 ,C6021 -C6023 ,C6038 -C6040	CKSQYF103Z50
C6056 ,C6064 ,C6071 -C6073 ,C6075	CKSQYF103Z50
C6078 ,C6081 ,C6082 ,C6089 ,C6093	CKSQYF103Z50
C6207 ,C6211 ,C6218 ,C6223 ,C6224	CKSQYF103Z50
C6231 -C6234 ,C6236 ,C6238 -C6241	CKSQYF103Z50
C6243 ,C6245 -C6250 ,C6254 -C6256	CKSQYF103Z50
C6258 ,C6261 ,C6401 -C6404 ,C6413	CKSQYF103Z50

RESISTORS

R6076	RD1/2LMF1R0J
R6069	RD1/4LMF270J
R6394 ,R6395 ,R6468 ,R6475 ,R6476	RS1/16S0R0J
R6520	RS1/16S0R0J
R6112 ,R6114 ,R6129 ,R6148 ,R6151	RS1/16S101J
R6165 ,R6173 ,R6176 ,R6209 ,R6210	RS1/16S101J
R6212 ,R6213 ,R6215 ,R6216	RS1/16S101J
R6235 ,R6236 ,R6238 ,R6239	RS1/16S101J
R6241 ,R6242 ,R6252 -R6254	RS1/16S101J
R6267 -R6269 ,R6295 ,R6298 ,R6301	RS1/16S101J
R6312 ,R6322 ,R6324 ,R6326 ,R6328	RS1/16S101J
R6336 ,R6338 ,R6345 ,R6347 ,R6349	RS1/16S101J
R6351 ,R6359 ,R6361 ,R6370	RS1/16S101J
R6437 -R6452 ,R6455 ,R6457 -R6459	RS1/16S101J
R6040 ,R6143 ,R6155 ,R6172	RS1/16S102J
R6177 ,R6178 ,R6188 ,R6197 ,R6315	RS1/16S102J
R6373 ,R6381 ,R6466	RS1/16S102J
R6005 ,R6044 ,R6141 ,R6145 ,R6186	RS1/16S103J
R6190 ,R6195 ,R6199 ,R6374 -R6378	RS1/16S103J
R6414 ,R6454 ,R6456	RS1/16S103J
R6004 ,R6006 ,R6036 ,R6043 ,R6045	RS1/16S104J
R6139 ,R6152 ,R6184 ,R6193	RS1/16S104J
R6261 -R6266 ,R6309 ,R6321 ,R6323	RS1/16S104J
R6325 ,R6327 ,R6335 ,R6337 ,R6344	RS1/16S104J
R6346 ,R6348 ,R6350 ,R6358 ,R6360	RS1/16S104J
R6367 ,R6380 ,R6421 ,R6422 ,R6470	RS1/16S104J
R6274	RS1/16S122J
R6207 ,R6223 -R6233 ,R6256 ,R6258	RS1/16S123J
R6260	RS1/16S123J
R6294 ,R6297 ,R6300	RS1/16S152J
R6055 ,R6057 ,R6110 ,R6111	RS1/16S153J
R6127 ,R6128 ,R6217 ,R6219 ,R6221	RS1/16S153J
R6243 ,R6245 ,R6247 ,R6303 ,R6305	RS1/16S153J
R6307	RS1/16S153J
R6007 ,R6008 ,R6046 ,R6047	RS1/16S181J
R6423 ,R6424	RS1/16S181J
R6208 ,R6313 ,R6371	RS1/16S182J
R6056 ,R6058 ,R6166 ,R6168 ,R6310	RS1/16S183J
R6368 ,R6434	RS1/16S183J
R6011 ,R6013 ,R6020 -R6026	RS1/16S221J
R6029 -R6033 ,R6037 ,R6052 ,R6053	RS1/16S221J
R6067 ,R6075 ,R6087 ,R6088 ,R6090	RS1/16S221J
R6094 ,R6103 ,R6117 ,R6119 ,R6140	RS1/16S221J
R6149 ,R6167 ,R6169 -R6171 ,R6174	RS1/16S221J

Mark	No.	Description	Part No.
	R6185 ,R6194 ,R6383 ,R6415		RS1/16S221J
	R6426 ,R6427 ,R6460 ,R6461		RS1/16S221J
	R6009 ,R6010 ,R6041 ,R6050 ,R6051		RS1/16S222J
	R6054 ,R6077 -R6082 ,R6137 ,R6138		RS1/16S222J
	R6150 ,R6156 ,R6175 ,R6211 ,R6214		RS1/16S222J
	R6218 ,R6220 ,R6222 ,R6234 ,R6237		RS1/16S222J
	R6240 ,R6244 ,R6246 ,R6248 ,R6304		RS1/16S222J
	R6306 ,R6308 ,R6417 ,R6419		RS1/16S222J
	R6109 ,R6121 -R6124 ,R6146 ,R6147		RS1/16S223J
	R6161 -R6164 ,R6191 ,R6192 ,R6200		RS1/16S223J
	R6255 ,R6257 ,R6259 ,R6314 ,R6372		RS1/16S223J
	R6384 ,R6385 ,R6407 -R6410		RS1/16S223J
	R6428 -R6431 ,R6433 ,R6435 ,R6436		RS1/16S223J
	R6059 ,R6068 ,R6273 ,R6343 ,R6366		RS1/16S332J
	R6420 ,R6425		RS1/16S332J
	R6285		RS1/16S393J
	R6275 -R6280 ,R6329 -R6334		RS1/16S470J
	R6352 -R6357		RS1/16S470J
	R6339 -R6341 ,R6362 -R6364		RS1/16S471J
	R6118 ,R6120 ,R6144 ,R6189 ,R6198		RS1/16S472J
	R6286 ,R6382 ,R6462 -R6464 ,R6472		RS1/16S472J
	R6474		RS1/16S472J
	R6411 ,R6413 ,R6432		RS1/16S473J
	R6001 ,R6002 ,R6062 ,R6063		RS1/16S474J
	R6070 ,R6071 ,R6135 ,R6136		RS1/16S474J
	R6284		RS1/16S513J
	R6034 ,R6035 ,R6125 ,R6126		RS1/16S560J
	R6039 ,R6142 ,R6154 ,R6187 ,R6196		RS1/16S562J
	R6311 ,R6369 ,R6379 ,R6465		RS1/16S562J
	R6412		RS1/16S563J
	R6012 ,R6014 -R6017 ,R6019		RS1/16S622J
	R6027 ,R6028 ,R6083 -R6086		RS1/16S622J
	R6133 ,R6134		RS1/16S622J
	R6270 -R6272 ,R6342 ,R6365		RS1/16S681J
	R6038 ,R6153		RS1/16S682J
	R6018 ,R6060 ,R6061 ,R6064 -R6066		RS1/16S750J
	R6072 -R6074 ,R6182 ,R6201 -R6206		RS1/16S750J
	R6249 -R6251		RS1/16S750J
	R6296 ,R6299 ,R6302		RS1/16S820J
	R6048 ,R6049 ,R6181 ,R6183 ,R6416		RS1/16S821J
	R6418		RS1/16S821J
	Other Resistors		RS1/10S□□□J

OTHERS

CN6006	PINJACK(6P) WITH SIN	AKB1271
CN6007	PINJACK(6P) WITH SIN	AKB1272
CN6010	PINJACK(6P)	AKB1273
CN6202	PINJACK(6P)	AKB1274
CN6404	PLUG 32-P	AKM1154
CN6201	PLUG 44-P	AKM1155
CN6002	L-PLUG(10P)	KM250MA10L
CN6204	L-PLUG(11P)	KM250MA11L
CN6001	PLUG 3-P	KM250MA3L
CN6004	PLUG 4-P	KM250MA4LR
CN6403	PLUG 6-P	KM250MA6L
CN6003	L-PLUG(8P)	KM250MA8L

Mark	No.	Description	Part No.

A TUNER u-COM ASSY

SEMICONDUCTORS

IC2204		24LC32A
IC2701		CXA1734S
IC2208,IC2702		MC14066BF
IC2206		PD0264AM
IC2201		PD5462B9
IC2202		PD5463B9
IC2203		PD5497B9
IC2209,IC2210,IC2703,IC2704		PQ20VZ1U
IC2801,IC2802		PQ20VZ1U
IC2205,IC2207		PST9146N
IC2211,IC2212		TC74HC4053AF
Q2202 ,Q2204 ,Q2206 ,Q2208 ,Q2210		2SA1162
Q2212 ,Q2218 ,Q2701 ,Q2706 ,Q2710		2SA1162
Q2713 ,Q2715 ,Q2804 ,Q2805		2SA1162
Q2201 ,Q2203 ,Q2205 ,Q2207 ,Q2209		2SC2712
Q2211 ,Q2213 -Q2217 ,Q2219 -Q2221		2SC2712
Q2223 -Q2229 ,Q2702 -Q2705		2SC2712
Q2707 ,Q2708 ,Q2711 ,Q2712 ,Q2714		2SC2712
Q2716 ,Q2717 ,Q2801 -Q2803 ,Q2806		2SC2712
Q2808 -Q2810		2SC2712
Q2222		2SJ460
D2313 -D2315		1SS184
D2205 ,D2207 ,D2210 -D2260		1SS226
D2262 -D2264 ,D2267 -D2297		1SS226
D2299 ,D2300 ,D2306 ,D2310 -D2312		1SS226
D2321 ,D2325 -D2343 ,D2703 ,D2704		1SS226
D2707 ,D2801 ,D2802 ,D2805		1SS226
D2201 -D2204 ,D2303 ,D2304		1SS352
D2307 -D2309 ,D2318 ,D2319		1SS352
D2261 ,D2265 ,D2266 ,D2323		RD15MB
D2705 ,D2706		RD15MB
D2206 ,D2208 ,D2209 ,D2298		RD6.8MB
D2301 ,D2302 ,D2305 ,D2316 ,D2317		RD6.8MB
D2709 ,D2804		UDZ33B

COILS AND FILTERS

L2201 ,L2202		ATC1037
L2701 -L2705 ,L2801 -L2804		LCTA2R2J3225
L2203		LCTA8R2J3225
F2706 ,F2707		VTF1097

CAPACITORS

C2710	C= 3.3,V(DC)= 50,A	ACH1128
C2704	C= 10,V(DC)= 50,A	ACH1129
C2732 ,C2822		CCSQCH101J50
C2238		CCSQCH120J50
C2223 ,C2233 ,C2282 ,C2283		CCSQCH150J50
C2237		CCSQCH390J50
C2727		CCSQCH470J50
C2219 ,C2227 ,C2250 ,C2251		CCSQSL221J50
C2811		CCSQSL470J50
C2201 -C2204 ,C2215 ,C2702 ,C2703		CEAT100M50
C2725 ,C2729 ,C2737 ,C2738		CEAT100M50
C2740 ,C2741 ,C2744 ,C2746 ,C2747		CEAT100M50
C2802 -C2804 ,C2815 ,C2818 ,C2821		CEAT100M50
C2206 ,C2216 ,C2224 ,C2234 ,C2239		CEAT101M10

Mark	No.	Description	Part No.
	C2241 ,C2252 ,C2254 ,C2260 ,C2265		CEAT101M10
	C2212		CEAT101M16
	C2717		CEAT101M25
	C2218 ,C2226 ,C2264 ,C2705 ,C2709		CEAT1R0M50
	C2735 ,C2814		CEAT331M16
	C2208		CEAT3R3M50
	C2245 ,C2262		CEAT470M10
	C2258		CEAT470M16
	C2720 ,C2721 ,C2723 ,C2801 ,C2808		CEAT471M16
	C2810		CEAT471M16
	C2211		CEAT471M25
	C2207 ,C2701 ,C2706 ,C2707		CEAT4R7M50
	C2714 -C2716 ,C2718		CEAT4R7M50
	C2222 ,C2230 ,C2249		CEATR10M50
	C2236 ,C2711		CEATR47M50
	C2214 ,C2256 ,C2257		CFTXA105J50
	C2708		CFTXA224J50
	C2221 ,C2229		CKSQYB561K50
	C2232 ,C2244 ,C2247 ,C2728 ,C2748		CKSQYF102Z50
	C2807 ,C2812		CKSQYF102Z50
	C2205 ,C2209 ,C2213 ,C2217 ,C2225		CKSQYF103Z50
	C2231 ,C2235 ,C2240 ,C2242 ,C2243		CKSQYF103Z50
	C2246 ,C2248 ,C2253 ,C2255 ,C2259		CKSQYF103Z50
	C2261 ,C2263 ,C2284 ,C2719 ,C2722		CKSQYF103Z50
	C2724 ,C2726 ,C2730 ,C2731 ,C2734		CKSQYF103Z50
	C2736 ,C2739 ,C2745 ,C2805 ,C2806		CKSQYF103Z50
	C2809 ,C2816 ,C2817 ,C2819		CKSQYF103Z50
	C2210		CKSQYF473Z50
	C2220 ,C2228		CQMA102J50
	C2713		CQMA272J50
	C2712		CQMA473J50
RESISTORS			
	R2763 ,R2830		RD1/2MMF271J
	R2792 ,R2831		RD1/4MUF332J
	R2551 ,R2552 ,R2764 ,R2773 ,R2828		RN1/16SE1001D
	R2837		RN1/16SE1001D
	R2550 ,R2553 ,R2772 ,R2836		RN1/16SE3001D
	R2771 ,R2834		RN1/16SE6201D
	R2235 ,R2417 ,R2520 ,R2521		RS1/16S0R0J
	R2531 ,R2532 ,R2534 ,R2573 ,R2611		RS1/16S0R0J
	R2221 ,R2228 ,R2258 ,R2264 -R2279		RS1/16S101J
	R2284 -R2286 ,R2289 -R2292		RS1/16S101J
	R2294 -R2297 ,R2299 ,R2300		RS1/16S101J
	R2302 -R2306 ,R2308 -R2311 ,R2313		RS1/16S101J
	R2315 ,R2317 -R2325 ,R2327		RS1/16S101J
	R2331 ,R2332 ,R2335 ,R2337 -R2345		RS1/16S101J
	R2347 -R2349 ,R2356 -R2358 ,R2361		RS1/16S101J
	R2363 ,R2373 ,R2374 ,R2376		RS1/16S101J
	R2379 ,R2380 ,R2411 ,R2412		RS1/16S101J
	R2425 -R2429 ,R2434 ,R2435		RS1/16S101J
	R2445 ,R2446 ,R2449 -R2451 ,R2453		RS1/16S101J
	R2458 -R2462 ,R2465 -R2473 ,R2485		RS1/16S101J
	R2489 ,R2490 ,R2493 ,R2495 -R2497		RS1/16S101J
	R2499 ,R2500 ,R2513 ,R2514		RS1/16S101J
	R2522 -R2528 ,R2535 ,R2542 -R2545		RS1/16S101J
	R2562 ,R2564 ,R2566 ,R2568 ,R2701		RS1/16S101J

Mark	No.	Description	Part No.
	R2744 ,R2745 ,R2750 -R2752 ,R2757		RS1/16S101J
	R2759 ,R2765 ,R2767 ,R2819 ,R2829		RS1/16S101J
	R2832 ,R2833 ,R2843		RS1/16S101J
	R2230 ,R2234 ,R2237 ,R2254 ,R2259		RS1/16S102J
	R2263 ,R2282 ,R2301 ,R2330 ,R2334		RS1/16S102J
	R2359 ,R2360 ,R2409 ,R2416 ,R2511		RS1/16S102J
	R2731 ,R2736 ,R2737 ,R2816		RS1/16S102J
	R2840 ,R2841		RS1/16S102J
	R2204 ,R2208 ,R2225 ,R2229 ,R2240		RS1/16S103J
	R2243 ,R2280 ,R2281 ,R2288 ,R2293		RS1/16S103J
	R2298 ,R2307 ,R2314 ,R2326 ,R2328		RS1/16S103J
	R2346 ,R2353 ,R2355 ,R2366 ,R2368		RS1/16S103J
	R2381 -R2408 ,R2418 ,R2447 ,R2448		RS1/16S103J
	R2454 -R2457 ,R2463 ,R2480 ,R2481		RS1/16S103J
	R2483 ,R2486 ,R2487 ,R2491 ,R2492		RS1/16S103J
	R2498 ,R2501 -R2503 ,R2505 -R2509		RS1/16S103J
	R2512 ,R2529 ,R2530 ,R2554 ,R2555		RS1/16S103J
	R2558 ,R2741 ,R2742 ,R2749 ,R2768		RS1/16S103J
	R2226 ,R2239		RS1/16S104J
	R2257 ,R2262 ,R2333		RS1/16S105J
	R2707 ,R2807		RS1/16S123J
	R2724 ,R2812		RS1/16S152J
	R2233 ,R2255 ,R2260 ,R2350 -R2352		RS1/16S153J
	R2369 ,R2372 ,R2415 ,R2479 ,R2727		RS1/16S153J
	R2811		RS1/16S153J
	R2244		RS1/16S155J
	R2430 ,R2431 ,R2537 ,R2539 ,R2541		RS1/16S182J
	R2756 ,R2808 ,R2844		RS1/16S182J
	R2246 ,R2436 ,R2440 ,R2477 ,R2708		RS1/16S183J
	R2728 ,R2739 ,R2746 ,R2760 ,R2766		RS1/16S183J
	R2806 ,R2814 ,R2827 ,R2842		RS1/16S183J
	R2718		RS1/16S204J
	R2213 -R2215 ,R2220 ,R2245 ,R2253		RS1/16S221J
	R2283 ,R2287 ,R2367 ,R2437 ,R2443		RS1/16S221J
	R2476 ,R2510 ,R2704 ,R2709 -R2711		RS1/16S221J
	R2720 ,R2721 ,R2723 ,R2730 ,R2735		RS1/16S221J
	R2747 ,R2779 -R2781 ,R2801 ,R2802		RS1/16S221J
	R2809 ,R2817 ,R2821 ,R2822 ,R2835		RS1/16S221J
	R2839		RS1/16S221J
	R2242 ,R2420 ,R2421 ,R2432 ,R2433		RS1/16S222J
	R2567 ,R2717		RS1/16S222J
	R2201 -R2203 ,R2205 -R2207		RS1/16S223J
	R2209 -R2211 ,R2216 -R2218		RS1/16S223J
	R2249 -R2251 ,R2438 ,R2475		RS1/16S223J
	R2516 -R2519 ,R2729 ,R2775 -R2778		RS1/16S223J
	R2815		RS1/16S223J
	R2227		RS1/16S224J
	R2312 ,R2316 ,R2336 ,R2362		RS1/16S272J
	R2364 ,R2365 ,R2546 ,R2547 ,R2702		RS1/16S272J
	R2705 ,R2818 ,R2823		RS1/16S272J
	R2248 ,R2442		RS1/16S273J
	R2733		RS1/16S302J
	R2212 ,R2219 ,R2241 ,R2252 ,R2504		RS1/16S332J
	R2536 ,R2538 ,R2540 ,R2732 ,R2743		RS1/16S332J
	R2748 ,R2754 ,R2782		RS1/16S332J

Mark	No.	Description	Part No.
	R2247 ,R2419 ,R2441		RS1/16S333J
	R2223 ,R2716		RS1/16S392J
	R2439 ,R2740 ,R2755		RS1/16S393J
	R2714		RS1/16S433J
	R2256 ,R2261 ,R2561 ,R2563 ,R2565		RS1/16S471J
	R2712 ,R2713 ,R2719 ,R2761 ,R2805		RS1/16S471J
	R2222 ,R2231 ,R2232 ,R2238 ,R2354		RS1/16S472J
	R2378 ,R2410 ,R2413 ,R2414		RS1/16S472J
	R2422 ,R2423 ,R2556 ,R2557 ,R2734		RS1/16S472J
	R2838		RS1/16S472J
	R2444 ,R2478 ,R2774		RS1/16S473J
	R2329		RS1/16S512J
	R2725 ,R2810		RS1/16S561J
	R2370 ,R2371 ,R2375 ,R2377 ,R2726		RS1/16S562J
	R2813		RS1/16S562J
	R2715		RS1/16S623J
	R2703 ,R2706 ,R2803 ,R2804		RS1/16S681J
	R2452 ,R2722 ,R2820		RS1/16S682J
	R2224		RS1/16S683J
	R2474		RS1/16S823J
	R2236 ,R2424		RS1MMF3R9J
	VR2701,VR2801	R=470 ,W= 0.1,MAKER=	ACP1039
	Other Resistors		RS1/10S□□□J

OTHERS

	2704 ,2705	PULG CORD	ADE1171
	J2703	10P HOUSING WIRE	ADX2496
	J2702	4P HOUSING WIRE	ADX2497
	CN2203	PLUG 32-P	AKM1154
	CN2202	PLUG 44-P	AKM1155
	K2201 -K2237 ,K2241	TEST PIN	AKX9002
	X2201 -X2203	CERAMIC RESONATOR (8.00MHz)	ASS1015
	CN2204	L-PLUG(10P)	KM250MA10L
	CN2213	PLUG 3-P	KM250MA3LR
	CN2205	PLUG 4-P	KM250MA4L
	CN2207	PLUG 4-P	KM250MA4LB
	CN2206	L-PLUG(8P)	KM250MA8LB
	CN2209	L-PLUG(8P)	KM250MA8LR

B VIDEO ASSY

SEMICONDUCTORS

	IC5254	CXA1315P
	IC5255	MC14577CP
	IC5601,IC5602	NJM7805FA
	IC5603,IC5604	NJM7809FA
	IC5251	TA1276AN
	IC5253	TC74HC4053AP
	IC5605	TC74HC4066AP
	IC5252	TC74HC4538AP
	Q5251 -Q5255 ,Q5260 -Q5264 ,Q5266	2SA933S
	Q5268 ,Q5270 ,Q5276 ,Q5277	2SA933S
	Q5285 -Q5287 ,Q5290 -Q5296 ,Q5301	2SA933S
	Q5305 ,Q5306 ,Q5314 ,Q5318 ,Q5604	2SA933S
	Q5608 ,Q5609	2SA933S
	Q5256 ,Q5257 ,Q5259 ,Q5265	2SC1740S
	Q5272 -Q5275 ,Q5278 -Q5284	2SC1740S
	Q5288 ,Q5289 ,Q5297 -Q5299 ,Q5302	2SC1740S
	Q5307 -Q5310 ,Q5313 ,Q5315 -Q5317	2SC1740S
	Q5319 ,Q5320 ,Q5602 ,Q5603	2SC1740S
	Q5605 -Q5607 ,Q5610 ,Q5612	2SC1740S
	Q5267 ,Q5269 ,Q5271	2SC2235
	Q5601	2SD880
	Q5611	2SK117
	D5251 -D5283 ,D5293 -D5297	1SS254
	D5307 -D5312 ,D5314 -D5319	1SS254
	D5329 -D5356 ,D5601 -D5618	1SS254
	D5623 -D5658 ,D5667 ,D5668	1SS254
	D5673 -D5681 ,D5688 ,D5689	1SS254
	D5692 ,D5693	1SS254
	D5298 -D5306 ,D5320 -D5328 ,D5619	MTZJ11
	D5621 ,D5659 ,D5666	MTZJ11
	D5682	MTZJ12C
	D5620	MTZJ15
	D5284 -D5292	S5688G

COILS AND FILTERS

	L5602 -L5605	ATH-059
	L5601	ATX1008
	L5251	LAU100J
	L5253	LAU1R0K
	L5606	LAU220J
	L5252	LAU4R7J

CAPACITORS

	C5638	CCCCH221J50
	C5259	CCCCH271J50
	C5298 ,C5299	CCCCH4R0C50
	C5629	CCCSL101J50
	C5332	CCCSL150J50
	C5296	CCCSL151J50
	C5322 ,C5334	CCCSL180J50
	C5288	CCCSL220J50
	C5636	CCCSL221J50
	C5295	CCCSL2R0C50
	C5329 ,C5330 ,C5637	CCCSL330J50
	C5287 ,C5337 ,C5338	CCCSL560J50
	C5283	CEAS6R8M50
	C5269 ,C5281 ,C5282 ,C5297 ,C5321	CEAT100M50
	C5336	CEAT100M50
	C5251 ,C5255 ,C5261 ,C5305 ,C5312	CEAT101M10
	C5314 ,C5324 ,C5326 ,C5328 ,C5603	CEAT101M10
	C5605	CEAT101M10
	C5620	CEAT101M16
	C5290 ,C5623 ,C5624	CEAT101M25
	C5601	CEAT102M10
	C5274	CEAT1R0M50
	C5301 -C5304 ,C5331 ,C5625 ,C5628	CEAT220M50
	C5270	CEAT221M10
	C5319	CEAT221M16
	C5309	CEAT221M25
	C5615 ,C5619	CEAT222M16
	C5272	CEAT2R2M50
	C5613	CEAT470M16

Mark	No.	Description	Part No.
	C5292 ,C5632 ,C5634		CEAT470M25
	C5607 ,C5608		CEAT471M10
	C5618 ,C5622		CEAT471M16
	C5285 ,C5627		CEAT4R7M50
	C5257 ,C5258 ,C5271 ,C5273 ,C5284		CEATR10M50
	C5286		CEATR47M50
	C5335		CKCYB391K50
	C5252 ,C5254 ,C5262 ,C5278 ,C5289		CKCYF103Z50
	C5293 ,C5294 ,C5306 ,C5310 ,C5311		CKCYF103Z50
	C5313 ,C5316 -C5318 ,C5320 ,C5325		CKCYF103Z50
	C5327 ,C5602 ,C5604 ,C5606		CKCYF103Z50
	C5609 -C5612 ,C5614 ,C5616 ,C5617		CKCYF103Z50
	C5621 ,C5626 ,C5631 ,C5633 ,C5635		CKCYF103Z50
	C5253 ,C5256		CQMA103J50
	C5263 -C5268 ,C5275 -C5277		CQMA104J50
	C5323		CQPA103J2A
	C5300		CQPA223J2A
	C5260		CQPA271J2A
RESISTORS			
	R5602		RD1/2MMF1R5J
	R5685		RD1/2MMF4R7J
	R5317 ,R5319 ,R5321 ,R5326 ,R5331		RD1/2PM100J
	R5336		RD1/2PM100J
	R5285 -R5287		RD1/2PM101J
	R5323 ,R5328 ,R5333		RD1/2PM821J
	R5294		RN1/4PC8200F
	R5295		RN1/4PC3301F
	R5297		RN1/4PC1202F
	R5298		RN1/4PC2201F
	R5646		RS1MMF2R7J
	R5645		RS1MMF3R3J
	R5374		RS1MMF3R9J
	R5644		RS2MMF8R2J
	R5601		RS3LMF5R6J
	VR5251,VR5252		VRTHS6VS223
	Other Resistors		RD1/4PU□□□J
OTHERS			
	CN5602-CN5604	SOCKET 32-P	AKP1185
	CN5605-CN5609	SOCKET 44-P	AKP1186
	CN5253	PLUG 10-P	KM250MA10R
	CN5251	PLUG 15-P	KM250MA15
	CN5601	PLUG 9-P	KM250MA9
	CN5252	PLUG 9-P	KM250MA9B
	5602	SCREW	PMZ30P100FZK

D SIGNAL ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC7802		24LC08B(I)SN
	IC7003 ,IC7701 ,IC7702		HY514264BJC -50A
	IC7700		MA07132
	IC7004 ,IC7503 -IC7505 ,IC7601 -IC7603		MB40C568HPFV
	IC7001 ,IC7006 ,IC7101 ,IC7102 ,IC7302		MC14577CF
	IC7501 ,IC7604 ,IC7707 ,IC7708		MC14577CF
	IC7301 ,IC7304 ,IC7500 ,IC7605		MM1031XM
	IC7103 ,IC7303 ,IC7305 ,IC7306		NJM2233BM
	IC7710		NJM2283M
	IC7800		PD5499A
	IC7007 ,IC7105		PQ05RD1B
	IC7106		PQ09RD1B
	IC7008 ,IC7709 ,IC7803		PQ20VZ1U
	IC7801		PST9146N
	IC7100 ,IC7300		TA1270AF
	IC7502 ,IC7600		TC74HC4066AF
	IC7705		TC74HCT32AF
	IC7009		TC7S66FU
	IC7005 ,IC7706		TC7SET08FU
	IC7507		TC7W04FU
	IC7307		TC90A45F
	IC7703 ,IC7704		TLC2932IPW
	IC7002		UPD64081BGF -3BA
	Q7002 ,Q7003 ,Q7005 ,Q7007 ,Q7008		2SA1162
	Q7109 -Q7112 ,Q7121 ,Q7128 -Q7131		2SA1162
	Q7311 ,Q7316 ,Q7318 ,Q7319		2SA1162
	Q7323 -Q7325 ,Q7503 -Q7505		2SA1162
	Q7603 -Q7605 ,Q7700 -Q7705		2SA1162
	Q7001 ,Q7004 ,Q7006 ,Q7009		2SC2712
	Q7100 ,Q7101 ,Q7103 -Q7108		2SC2712
	Q7113 -Q7120 ,Q7122 ,Q7300 ,Q7301		2SC2712
	Q7303 -Q7310 ,Q7312 -Q7315 ,Q7317		2SC2712
	Q7320 -Q7322 ,Q7500 -Q7502		2SC2712
	Q7506 -Q7508 ,Q7600 -Q7602 ,Q7606		2SC2712
	Q7800 ,Q7801		2SC2712
	D7800 ,D7801		1SS184
	D7802 -D7807		1SS226
	D7500 ,D7501 ,D7808		1SS352
	D7300 ,D7301 ,D7700 -D7702		RD10MB
COILS AND FILTERS			
	F7500 -F7502 ,F7600 ,F7703 ,F7704		ATF1124
	F7001 ,F7004 ,F7700		ATF1127
	F7002 ,F7003 ,F7701 ,F7702		ATF1179
	DL7100		ATN1054
	L7704 ,L7705		ATX1035
	L7101 ,L7706		LCTA100J3225
	L7302		LCTA101J3225
	L7102		LCTA120J3225
	L7100 ,L7303		LCTA121J3225
	L7008 ,L7110 ,L7304 ,L7305 ,L7720		LCTA220J3225
	L7103		LCTA3R9J3225
	L7001		LCTA4R7J3225
	L7108 ,L7109 ,L7111 ,L7300 ,L7301		LCTA5R6J3225
	L7002 -L7007 ,L7500 ,L7502 ,L7503		QTL1013
	L7505 ,L7506 ,L7508 ,L7600		QTL1013
	L7602 ,L7603 ,L7605 ,L7606		QTL1013
	L7608 -L7634 ,L7707 ,L7711 -L7717		QTL1013
	L7721 -L7743 ,L7800 -L7804		QTL1013
	L7806 -L7810		QTL1013
	F7503 ,F7504 ,F7601 ,F7602		VTF1097
	F7800 -F7804		VTF1097
CAPACITORS			
	C7038 ,C7500 -C7502 ,C7509 ,C7512		CCSQCH101J50
	C7515 ,C7529 ,C7530 ,C7537		CCSQCH101J50
	C7600 -C7602 ,C7604 ,C7607 ,C7610		CCSQCH101J50
	C7702 -C7704 ,C7711 ,C7712 ,C7803		CCSQCH101J50
	C7153 ,C7340 ,C7361 ,C7363		CCSQCH120J50

Mark	No.	Description	Part No.
	C7145 ,C7147		CCSQCH121J50
	C7357		CCSQCH180J50
	C7355		CCSQCH181J50
	C7166 ,C7778 ,C7788		CCSQCH220J50
	C7806		CCSQCH220J50
	C7523 ,C7526 ,C7617 ,C7620		CCSQCH221J50
	C7002 ,C7362 ,C7364		CCSQCH270J50
	C7003 ,C7059 ,C7164 ,C7727 ,C7728		CCSQCH330J50
	C7760		CCSQCH330J50
	C7148		CCSQCH331J50
	C7356		CCSQCH390J50
	C7807		CCSQCH391J50
	C7015		CCSQCH471J50
	C7129 ,C7140		CCSQCH561J50
	C7146		CCSQCH680J50
	C7365 ,C7370		CCSQCJ3R0C50
	C7623		CCSQSH121J50
	C7101 ,C7301		CCSQSL222J50
	C7008		CCSQSL391J50
	C7336 ,C7751		CEAT101M16
	C7729 ,C7750		CEAT102M6R3
	C7104		CEAT471M10
	C7752		CEAT471M16
	C7010 ,C7108 ,C7110 ,C7125		CEV100M16
	C7308 -C7310 ,C7325 ,C7344 -C7347		CEV100M16
	C7545 ,C7707 ,C7713 ,C7743 ,C7744		CEV100M16
	C7032 ,C7034 ,C7046 ,C7050 ,C7126		CEV101M6R3
	C7159 ,C7326 ,C7532 ,C7536 ,C7541		CEV101M6R3
	C7625 ,C7629 ,C7632 ,C7705 ,C7715		CEV101M6R3
	C7731 ,C7741 ,C7749 ,C7755 ,C7759		CEV101M6R3
	C7809		CEV101M6R3
	C7014 ,C7130 ,C7141 ,C7341 ,C7343		CEV1R0M50
	C7546 ,C7641		CEV1R0M50
	C7142 -C7144		CEV220M16
	C7040 ,C7042 ,C7044		CEV221M10
	C7102 ,C7103 ,C7302 ,C7303		CEV2R2M50
	C7054 ,C7058 ,C7135 ,C7138 ,C7139		CEV470M16
	C7154 ,C7157 ,C7158 ,C7160 -C7162		CEV470M16
	C7304 ,C7332 ,C7335 ,C7349 ,C7351		CEV470M16
	C7539 ,C7540 ,C7542 -C7544		CEV470M16
	C7634 ,C7635 ,C7639 ,C7642 ,C7758		CEV470M16
	C7808		CEV470M16
	C7028 ,C7030 ,C7047 ,C7109 ,C7156		CEV470M6R3
	C7337 -C7339, C7342 ,C7547 , C7643 ,C7756		CEV470M6R3
	C7132 ,C7133 ,C7329 ,C7330 ,C7735		CEVNP100M16
	C7742 ,C7746 ,C7747		CEVNP100M16
	C7045		CEVNP1R0M50
	C7505 -C7507 ,C7636 -C7638		CEVNP2R2M35
	C7748		CEVNP470M6R3
	C7128 ,C7328		CEVNP4R7M16
	C7100 ,C7300		CEVR22M50
	C7358		CEVR47M50
	C7107 ,C7307		CFHS223J16
	C7753 ,C7754		CFHS393J16
	C7106 ,C7111 -C7117 ,C7306		CFHSP104J16
	C7311 -C7317		CFHSP104J16
	C7810		CFHSP563J16
	C7804		CFHSQ103J16
	C7012 ,C7105 ,C7155 ,C7305		CKSQYB103K50
	C7805		CKSQYB223K50
	C7057		CKSQYB473K50
	C7163 ,C7348 ,C7350 ,C7352 -C7354		CKSQYF103Z50
	C7359 ,C7360 ,C7366 -C7369 ,C7371		CKSQYF103Z50
	C7503 ,C7504 ,C7508 ,C7531 ,C7603		CKSQYF103Z50
	C7640 ,C7737 ,C7738 ,C7800 ,C7802		CKSQYF103Z50
	C7001 ,C7004 -C7007 ,C7009 ,C7011		CKSQYF104Z50
	C7013 ,C7016 -C7024 ,C7027 ,C7029		CKSQYF104Z50
	C7031 ,C7033 ,C7035 -C7037 ,C7039		CKSQYF104Z50
	C7041 ,C7043 ,C7048 ,C7049 ,C7056		CKSQYF104Z50
	C7122 -C7124 ,C7127 ,C7131 ,C7134		CKSQYF104Z50
	C7136 ,C7323 ,C7327 ,C7331 ,C7333		CKSQYF104Z50
	C7518 -C7522 ,C7524 ,C7525		CKSQYF104Z50
	C7527 ,C7528 ,C7533 -C7535 ,C7550		CKSQYF104Z50
	C7552 ,C7553 ,C7555 ,C7556 ,C7558		CKSQYF104Z50
	C7613 -C7616 ,C7618 ,C7619		CKSQYF104Z50
	C7621 ,C7622 ,C7624 ,C7626 -C7628		CKSQYF104Z50
	C7633 ,C7644 ,C7646 ,C7647		CKSQYF104Z50
	C7649 ,C7650 ,C7652 ,C7700 ,C7701		CKSQYF104Z50
	C7706 ,C7710 ,C7714 ,C7716 ,C7723		CKSQYF104Z50
	C7730 ,C7732 -C7734 ,C7736		CKSQYF104Z50
	C7739 ,C7740 ,C7745 ,C7757		CKSQYF104Z50
	C7761 -C7771 ,C7773 -C7777		CKSQYF104Z50
	C7779 -C7782		CKSQYF104Z50

RESISTORS

R7881		RN1/16SE1001D
R7073 ,R7764		RN1/16SE1101D
R7062 ,R7074 ,R7765		RN1/16SE1801D
R7063		RN1/16SE2201D
R7882		RN1/16SE3001D
R7001 ,R7002 ,R7022 ,R7042 ,R7043		RS1/16S0R0J
R7058 ,R7059 ,R7061 ,R7075 -R7077		RS1/16S0R0J
R7079 -R7085 ,R7110 ,R7114 ,R7133		RS1/16S0R0J
R7228 ,R7264 ,R7280 ,R7281 ,R7310		RS1/16S0R0J
R7334 ,R7387 ,R7416 ,R7500		RS1/16S0R0J
R7507 ,R7508 ,R7525 ,R7528 ,R7530		RS1/16S0R0J
R7539 ,R7619 ,R7621 ,R7623 ,R7716		RS1/16S0R0J
R7722 ,R7728 ,R7753 ,R7810 ,R7840		RS1/16S0R0J
R7884		RS1/16S0R0J
R7028 ,R7035 ,R7181 -R7183		RS1/16S100J
R7261 -R7263 ,R7353 -R7355		RS1/16S100J
R7012 ,R7044 ,R7064 -R7071 ,R7104		RS1/16S101J
R7109 ,R7111 -R7113 ,R7116 ,R7129		RS1/16S101J
R7149 ,R7165 -R7167 ,R7173 ,R7174		RS1/16S101J
R7176 ,R7177 ,R7179 ,R7180 ,R7184		RS1/16S101J
R7187 ,R7193 ,R7196 ,R7208		RS1/16S101J
R7233 -R7235 ,R7244 ,R7246 ,R7248		RS1/16S101J
R7283 ,R7304 ,R7309 ,R7311 -R7314		RS1/16S101J
R7316 ,R7330 ,R7341 ,R7345		RS1/16S101J
R7351 ,R7352		RS1/16S101J
R7368 ,R7370 ,R7372 ,R7373 ,R7375		RS1/16S101J
R7377 -R7381 ,R7405 -R7409 ,R7413		RS1/16S101J

Mark	No.	Description	Part No.
	R7415 ,R7535 -R7537 ,R7615 -R7617		RS1/16S101J
	R7715 ,R7730 ,R7735 ,R7740 ,R7747		RS1/16S101J
	R7749 ,R7751 ,R7759 -R7761		RS1/16S101J
	R7766 -R7770 ,R7800 ,R7803 -R7807		RS1/16S101J
	R7821 -R7826 ,R7830 ,R7831		RS1/16S101J
	R7871 -R7876		RS1/16S101J
	R7005 ,R7009 ,R7016 ,R7023 ,R7026		RS1/16S102J
	R7034 ,R7038 ,R7039 ,R7055 ,R7057		RS1/16S102J
	R7107 ,R7108 ,R7134 ,R7145 ,R7147		RS1/16S102J
	R7154 ,R7157 ,R7158 ,R7160 ,R7164		RS1/16S102J
	R7172 ,R7175 ,R7178 ,R7204		RS1/16S102J
	R7307 ,R7308 ,R7342 ,R7343 ,R7350		RS1/16S102J
	R7371 ,R7374 ,R7382 -R7385		RS1/16S102J
	R7388 -R7391 ,R7394 ,R7395 ,R7397		RS1/16S102J
	R7401 ,R7403 ,R7404 ,R7411		RS1/16S102J
	R7503 -R7505 ,R7509 ,R7510 ,R7538		RS1/16S102J
	R7543 ,R7544 ,R7601 ,R7602 ,R7624		RS1/16S102J
	R7626 ,R7629 ,R7700 -R7703 ,R7708		RS1/16S102J
	R7721 ,R7725 ,R7726 ,R7744 ,R7745		RS1/16S102J
	R7752 ,R7763 ,R7829 ,R7868 ,R7879		RS1/16S102J
	R7887		RS1/16S102J
	R7006 ,R7020 ,R7072 ,R7101 ,R7159		RS1/16S103J
	R7185 ,R7188 ,R7194 ,R7230 ,R7232		RS1/16S103J
	R7239 ,R7241 ,R7301 ,R7325 ,R7357		RS1/16S103J
	R7360 ,R7366 ,R7410 ,R7827 ,R7828		RS1/16S103J
	R7841 ,R7843 ,R7845 -R7867		RS1/16S103J
	R7869 ,R7870 ,R7877 ,R7878 ,R7880		RS1/16S103J
	R7883		RS1/16S103J
	R7518 ,R7520 ,R7522 ,R7609 ,R7611		RS1/16S104J
	R7613		RS1/16S104J
	R7050 ,R7186 ,R7189 ,R7195 ,R7358		RS1/16S122J
	R7361 ,R7367 ,R7762		RS1/16S122J
	R7398		RS1/16S132J
	R7162 ,R7170 ,R7205 ,R7207 ,R7506		RS1/16S152J
	R7511 ,R7625 ,R7627		RS1/16S152J
	R7163		RS1/16S153J
	R7156		RS1/16S162J
	R7010 ,R7011 ,R7146		RS1/16S182J
	R7171		RS1/16S183J
	R7533 ,R7534 ,R7755		RS1/16S220J
	R7013 ,R7027 ,R7041 ,R7202 ,R7206		RS1/16S221J
	R7242		RS1/16S221J
	R7019 ,R7024 ,R7029 ,R7036 ,R7121		RS1/16S222J
	R7125 ,R7127 ,R7139 ,R7142 ,R7190		RS1/16S222J
	R7321 ,R7326 ,R7328 ,R7335 ,R7338		RS1/16S222J
	R7362 ,R7369 ,R7712 ,R7717 ,R7729		RS1/16S222J
	R7734 ,R7739 ,R7813		RS1/16S222J
	R7138 ,R7201 ,R7524 ,R7526 ,R7529		RS1/16S223J
	R7531 ,R7814 ,R7886		RS1/16S223J
	R7014		RS1/16S224J
	R7007 ,R7008 ,R7030 ,R7031		RS1/16S271J
	R7048 ,R7049 ,R7105 ,R7106 ,R7122		RS1/16S271J
	R7284 ,R7305 ,R7306 ,R7322 ,R7502		RS1/16S271J
	R7600 ,R7731 ,R7736 ,R7741		RS1/16S271J
	R7200 ,R7243 ,R7245 ,R7247 ,R7376		RS1/16S272J
	R7399 ,R7412 ,R7414 ,R7711 ,R7719		RS1/16S272J
	R7746 ,R7748 ,R7750		RS1/16S272J
	R7140 ,R7143 ,R7191 ,R7336 ,R7339		RS1/16S273J
	R7363		RS1/16S273J
	R7102 ,R7155 ,R7302		RS1/16S302J
	R7100 ,R7300		RS1/16S303J
	R7724 ,R7727		RS1/16S330J
	R7135 ,R7320 ,R7519 ,R7521 ,R7523		RS1/16S332J
	R7610 ,R7612 ,R7614		RS1/16S332J
	R7141 ,R7144 ,R7192 ,R7337 ,R7340		RS1/16S333J
	R7364 ,R7704 -R7707 ,R7709 ,R7710		RS1/16S333J
	R7037 ,R7051 ,R7103 ,R7303 ,R7396		RS1/16S361J
	R7033 ,R7150 ,R7346 ,R7400		RS1/16S391J
	R7120		RS1/16S392J
	R7240		RS1/16S393J
	R7003 ,R7004 ,R7017 ,R7025 ,R7052		RS1/16S471J
	R7356, R7359, R7365, R7771 ,R7811 , R7812		RS1/16S471J
	R7018 ,R7021 ,R7151 ,R7152 ,R7161		RS1/16S472J
	R7169 ,R7249 ,R7347 ,R7348 ,R7512		RS1/16S472J
	R7514 ,R7516 ,R7527 ,R7532 ,R7603		RS1/16S472J
	R7605 ,R7607 ,R7808 ,R7809		RS1/16S472J
	R7815 -R7820 ,R7832 -R7839 ,R7844		RS1/16S472J
	R7015 ,R7136 ,R7137 ,R7153 ,R7349		RS1/16S473J
	R7054 ,R7402 ,R7732 ,R7733		RS1/16S561J
	R7737 ,R7738 ,R7742 ,R7743 ,R7756		RS1/16S561J
	R7124 ,R7199 ,R7282 ,R7324 ,R7842		RS1/16S562J
	R7053 ,R7197 ,R7392 ,R7393		RS1/16S681J
	R7032 ,R7198 ,R7713 ,R7718		RS1/16S751J
	R7757 ,R7758		RS1/16S751J
	R7386		RS1/16S821J
	R7040 ,R7203		RS1/16S911J
	R7236		RS3LMF4R7J
	R7168 ,R7231		RS3LMF5R6J
	Other Resistors		RS1/10S□□□J

OTHERS

J7001	8P HOUSING WIRE	ADX2495
CN7800	PLUG 32 -P	AKM1154
CN7600	PLUG 44 -P	AKM1155
X7800	CERAMIC RESONATOR(8.00MHz)	ASS1015
X7101 ,X7301	CERAMIC RESONATOR(503KHz)	ASS1019
X7100 ,X7300	CRYSTAL RESONATOR(3579 ,545KHz)	ASS1138
X7001	CRYSTAL RESONATOR(20MHz)	ASS1140
1 ,2	SCREW	BBZ30P100FZK
CN7100	PLUG 6 -P	KM250MA6LR

C SUB VIDEO ASSY

SEMICONDUCTORS

IC4201	AN5344FBP
IC4401	AN5395FBP
IC4713	CD74HCT4046AM
IC4405	CXA1315M
IC4005	HG62G010R29FB
IC4722	M51952BML
IC3802	M52036SP
IC4403	MC14011BF

Mark	No.	Description	Part No.
	IC4202		MC14577CF
	IC4402		PA0030
	IC4720		PE6002A9
	IC4203		PQ20VZ1U
	IC4701		PST9146N
	IC4704		SAA4952WP
	IC4719		SAA4990H
	IC4702		SAA7165WP
	IC4004		TA8667F
	IC4002 ,IC4003		TC35071F
	IC4007		TC4053BF
	IC3801		TC74HC4053AF
	IC3803 ,IC4006 ,IC4404 ,IC4718		TC74HC4066AF
	IC3804		TC74HC4538AF
	IC4714		TC74HCT04AF
	IC4716		TC74HCT08AF
	IC4001		TC9078F
	IC4703		TDA8755T
	IC4705 ,IC4706		TMS4C2973 -26
	IC4707 ,IC4708		UPC29L33T
	IC4709 -IC4711		UPC78L05T
	Q4707 ,Q4709		2SA1037K
	Q3807 ,Q3808 ,Q3812 -Q3814		2SA1162
	Q3822 -Q3825 ,Q4002 ,Q4006		2SA1162
	Q4009 ,Q4010 ,Q4013 ,Q4014		2SA1162
	Q4016 ,Q4017 ,Q4027 -Q4029		2SA1162
	Q4031 ,Q4032 ,Q4036 -Q4038		2SA1162
	Q4042 -Q4044 ,Q4203 -Q4205 ,Q4207		2SA1162
	Q4217 -Q4219 ,Q4221 -Q4224		2SA1162
	Q4226 ,Q4227 ,Q4231 ,Q4232		2SA1162
	Q4234 ,Q4235 ,Q4237 ,Q4243 -Q4246		2SA1162
	Q4401 ,Q4402 ,Q4406 ,Q4407 ,Q4417		2SA1162
	Q4422 ,Q4423 ,Q4429 ,Q4433 -Q4436		2SA1162
	Q4704 ,Q4706 ,Q4712		2SA1162
	Q3801 -Q3806 ,Q3809 -Q3811		2SC2712
	Q3815 -Q3821 ,Q3826 ,Q4001 ,Q4003		2SC2712
	Q4005 ,Q4007 ,Q4008 ,Q4011 ,Q4012		2SC2712
	Q4015 ,Q4018 -Q4026 ,Q4030		2SC2712
	Q4033 -Q4035 ,Q4039 -Q4041 ,Q4045		2SC2712
	Q4047 ,Q4048 ,Q4202 ,Q4206		2SC2712
	Q4208 ,Q4209 ,Q4212 -Q4215 ,Q4220		2SC2712
	Q4225 ,Q4228 -Q4230 ,Q4233 ,Q4236		2SC2712
	Q4238 -Q4240 ,Q4242 ,Q4247 -Q4252		2SC2712
	Q4403 -Q4405 ,Q4408 ,Q4409 ,Q4411		2SC2712
	Q4413 -Q4416 ,Q4418 -Q4421		2SC2712
	Q4424 ,Q4425 ,Q4428 ,Q4430 -Q4432		2SC2712
	Q4437 -Q4443 ,Q4701 ,Q4703 ,Q4705		2SC2712
	Q4708 ,Q4711 ,Q4717 -Q4719		2SC2712
	Q4004 ,Q4216		2SK208
	D3855		1SS181
	D4202 ,D4208		1SS184
	D3801 -D3839 ,D3841 -D3845		1SS226
	D3848 -D3850 ,D3852 -D3854		1SS226
	D4001 -D4005 ,D4201 ,D4203 -D4207		1SS352
	D4209 ,D4701 ,D4702 ,D4706 ,D4712		1SS352
	D4705 ,D4711		1SV232

COILS AND FILTERS

	L4004		ATC1037
	F4001 -F4004 ,F4401 ,F4402 ,F4404		ATF1124
	F4703 ,F4704		ATF1124
	F4005 -F4007		ATF1128
	F4701		ATF1186
	L4706		ATG1060
	F4715	ATG1063	F=30MHZ ,RANGE=18.6P
	DL4401 ,DL4402		ATN1029
	DL4201		ATN1040
	DL4403		ATN1055
	L4735 ,L4738		ATX1035
	L4745		LAUR33J
	L4405 ,L4704 ,L4705 ,L4710		LCTA100J3225
	L4713 ,L4714		LCTA100J3225
	L4002 ,L4003 ,L4005 ,L4006		LCTA101J3225
	L4007		LCTA150J3225
	L4707 -L4709		LCTA1R2J3225
	L4409 ,L4410 ,L4412		LCTA1R5J3225
	L4008 ,L4712		LCTA1R8J3225
	L4701 ,L4702		LCTA221J3225
	L4715 -L4717		LCTA2R2J3225
	L4001 ,L4406 ,L4407		LCTA4R7J3225
	L4202 ,L4402 ,L4404 ,L4411		LCTA5R6J3225
	L4401		LCTA820J3225
	L4408		LCTAR56J3225
	L4718 -L4734 ,L4736 ,L4737		QTL1013
	L4739 -L4744		QTL1013
	F4716 -F4721		VTF1097

CAPACITORS

	C4838	CCCCH100D50
	C4840	CCCSL101J50
	C4839	CCCSL680J50
	C4430 ,C4432 -C4434 ,C4772 ,C4775	CCSQCH100D50
	C4779 ,C4835 ,C4836	CCSQCH100D50
	C4222 ,C4228 ,C4235 ,C4243 ,C4443	CCSQCH101J50
	C4468 -C4472	CCSQCH101J50
	C4007 ,C4008 ,C4018 ,C4019	CCSQCH121J50
	C4021 ,C4022 ,C4076 -C4079 ,C4482	CCSQCH121J50
	C4431 ,C4721	CCSQCH150J50
	C4442, C4478	CCSQCH151J50
	C4821 ,C4823 ,C4825	CCSQCH180J50
	C4083 ,C4480	CCSQCH181J50
	C4731 ,C4732 ,C4805	CCSQCH220J50
	C4011 ,C4074 ,C4075 ,C4084	CCSQCH221J50
	C4704 ,C4706 ,C4718 ,C4719	CCSQCH221J50
	C4761 ,C4762 ,C4773 ,C4776 ,C4780	CCSQCH221J50
	C4474 ,C4746	CCSQCH270J50
	C4441, C4822 ,C4824 ,C4826	CCSQCH271J50
	C4229 ,C4429 ,C4481	CCSQCH330J50
	C4747 ,C4760	CCSQCH331J50
	C4461 ,C4730	CCSQCH390J50
	C4080 ,C4081 ,C4410	CCSQCH470J50
	C4402 ,C4771 ,C4774 ,C4778	CCSQCH560J50
	C4748 ,C4749	CCSQCH680J50

Mark	No.	Description	Part No.
	C4009		CCSQCH820J50
	C4811		CCSQCH8R0D50
	C4017		CCSQSL101J50
	C4424		CCSQSL221J50
	C4453		CCSQSL560J50
	C3818 ,C3826 ,C4010 ,C4233 ,C4234		CEV100M16
	C4415 ,C4425 -C4428 ,C4438		CEV100M16
	C4702 ,C4703 ,C4715 ,C4717 ,C4765		CEV100M16
	C4810 ,C4816 ,C4817		CEV100M16
	C4231		CEV100M50
	C4206 ,C4207 ,C4225 ,C4230 ,C4236		CEV101M16
	C4241 ,C4440 ,C4454 -C4458 ,C4462		CEV101M16
	C4005 ,C4006 ,C4037 ,C4039 ,C4041		CEV101M6R3
	C4045 ,C4058 ,C4067 ,C4071 ,C4237		CEV101M6R3
	C4061 ,C4212 ,C4213 ,C4216		CEV1R0M50
	C3802 ,C3803 ,C4015 ,C4020 ,C4023		CEV220M16
	C4025 ,C4027 ,C4785 ,C4787 ,C4789		CEV220M16
	C4791 ,C4812 ,C4814 ,C4819		CEV220M16
	C4226		CEV220M6R3
	C4219 ,C4711		CEV2R2M50
	C3801 ,C3804 ,C3806 ,C3807 ,C3809		CEV470M16
	C3816 ,C3819 ,C4002 ,C4029 ,C4031		CEV470M16
	C4062 ,C4082 ,C4085 ,C4227 ,C4436		CEV470M16
	C4446 ,C4450 ,C4459 ,C4460 ,C4476		CEV470M16
	C3824 ,C4093 ,C4701 ,C4777		CEV470M6R3
	C4705 ,C4707 ,C4744		CEV4R7M35
	C3813		CEVNP1R0M50
	C4210 ,C4211		CEVNP2R2M35
	C4208 ,C4209		CEVNPR33M50
	C3814		CEVR10M50
	C4201 ,C4202		CEVR33M50
	C4217		CEVR47M50
	C4214 ,C4403 ,C4411 ,C4419 ,C4467		CFHSQ103J16
	C4064 ,C4073 ,C4232 ,C4423		CKSQYB102K50
	C3811		CKSQYB103K50
	C4418		CKSQYB152K50
	C4463 -C4466		CKSQYB224K16
	C4763		CKSQYB272K50
	C3810		CKSQYB472K50
	C3812 ,C3815		CKSQYB561K50
	C4060		CKSQYB822K50
	C3820 ,C3825 ,C3828 ,C4094 ,C4095		CKSQYF103Z50
	C4097 ,C4215 ,C4218 ,C4242		CKSQYF103Z50
	C4404 -C4409 ,C4412 ,C4414 ,C4416		CKSQYF103Z50
	C4420 ,C4422 ,C4448 ,C4475 ,C4708		CKSQYF103Z50
	C4710 ,C4743 ,C4764 ,C4806 ,C4820		CKSQYF103Z50
	C3829 ,C4001 ,C4003 ,C4004		CKSQYF104Z50
	C4012 -C4014 ,C4016 ,C4024 ,C4026		CKSQYF104Z50
	C4028 ,C4030 ,C4032 -C4036 ,C4038		CKSQYF104Z50
	C4040 ,C4042 -C4044 ,C4046 -C4057		CKSQYF104Z50
	C4059 ,C4063 ,C4065 ,C4068 ,C4070		CKSQYF104Z50
	C4072 ,C4090 ,C4709 ,C4714 ,C4716		CKSQYF104Z50
	C4720 ,C4722 ,C4725 -C4729 ,C4750		CKSQYF104Z50
	C4752 -C4756 ,C4759 ,C4766 -C4770		CKSQYF104Z50
	C4781 -C4784 ,C4786 ,C4788 ,C4790		CKSQYF104Z50
	C4792 -C4800 ,C4804 ,C4808 ,C4809		CKSQYF104Z50
	C4813 ,C4815 ,C4818 ,C4827 -C4834		CKSQYF104Z50
	C4712 ,C4713		CKSQYF333Z50
	C3805 ,C3808 ,C3817 ,C4086		CKSQYF473Z50
	C4203 ,C4204 ,C4223 ,C4224 ,C4238		CKSQYF473Z50
	C4240 ,C4417 ,C4421 ,C4435 ,C4437		CKSQYF473Z50
	C4439 ,C4444 ,C4445 ,C4447 ,C4449		CKSQYF473Z50
	C4451 ,C4452 ,C4742		CKSQYF473Z50
	C3822		CQMA102J50
	C3821		CQPA222J2A
	C3823		CQPA331J2A
RESISTORS			
	R4395		RN1/16SE1101D
	R4516		RN1/16SE3001D
	R4027 ,R4037 ,R4097 ,R4102 ,R4355		RS1/16S0R0J
	R4406 ,R4449 ,R4462 ,R4597 ,R4704		RS1/16S0R0J
	R4706 ,R4770 ,R4783 ,R4809 ,R4811		RS1/16S0R0J
	R4829 ,R6186		RS1/16S0R0J
	R4394		RS1/16S1002D
	R4781 ,R4795 ,R4827		RS1/16S100J
	R3801 ,R3813 ,R3815 ,R3817 ,R3831		RS1/16S101J
	R3834 ,R3837 -R3844 ,R3851 -R3855		RS1/16S101J
	R3858 ,R3864 -R3876 ,R3880 -R3888		RS1/16S101J
	R3890 -R3896 ,R3900 -R3913 ,R3915		RS1/16S101J
	R3918 -R3925 ,R3927 ,R3932 ,R3934		RS1/16S101J
	R3942 ,R3943 ,R3945 ,R4001 ,R4002		RS1/16S101J
	R4009 ,R4014 ,R4019 ,R4020 ,R4023		RS1/16S101J
	R4029 ,R4030 ,R4033 ,R4039		RS1/16S101J
	R4045 -R4048 ,R4058 ,R4065		RS1/16S101J
	R4067 -R4069 ,R4073 ,R4081		RS1/16S101J
	R4083 ,R4084 ,R4086 ,R4087 ,R4091		RS1/16S101J
	R4099 ,R4109 ,R4114 ,R4115		RS1/16S101J
	R4117 ,R4118 ,R4120 ,R4122 -R4124		RS1/16S101J
	R4129 -R4131 ,R4133 -R4135		RS1/16S101J
	R4137 -R4141 ,R4144 ,R4146 ,R4147		RS1/16S101J
	R4150 ,R4152 -R4155 ,R4164 ,R4165		RS1/16S101J
	R4202 ,R4205 ,R4239 ,R4240		RS1/16S101J
	R4242 ,R4243 ,R4245 ,R4254 ,R4256		RS1/16S101J
	R4268 ,R4269 ,R4274 ,R4293 -R4297		RS1/16S101J
	R4299 -R4301 ,R4341 ,R4342		RS1/16S101J
	R4351 -R4353 ,R4359 ,R4370 ,R4371		RS1/16S101J
	R4376 ,R4380 ,R4386 ,R4408 -R4410		RS1/16S101J
	R4415 ,R4420 ,R4422 ,R4425		RS1/16S101J
	R4428 -R4430 ,R4439 ,R4442 ,R4443		RS1/16S101J
	R4445 ,R4453 ,R4461 ,R4466 ,R4467		RS1/16S101J
	R4470 ,R4513 ,R4514 ,R4518 -R4521		RS1/16S101J
	R4528 ,R4538 ,R4543 ,R4546		RS1/16S101J
	R4548 ,R4549 ,R4554 ,R4564 -R4575		RS1/16S101J
	R4584 ,R4588 ,R4589 ,R4593 ,R4595		RS1/16S101J
	R4598 ,R4713 ,R4719 ,R4726 ,R4728		RS1/16S101J
	R4730 ,R4804 ,R4813 ,R4815		RS1/16S101J
	R3937 ,R4071 ,R4072 ,R4074 ,R4076		RS1/16S102J
	R4127 ,R4170 ,R4172 ,R4206 ,R4216		RS1/16S102J
	R4249 ,R4257 ,R4277 ,R4289 ,R4389		RS1/16S102J
	R4404 ,R4405 ,R4414 ,R4426 ,R4438		RS1/16S102J
	R4483 ,R4530 ,R4594 ,R4599 ,R4607		RS1/16S102J

Mark	No.	Description	Part No.
	R4707 ,R4708 ,R4729 ,R4792 ,R4832		RS1/16S102J
	R4837		RS1/16S102J
	R3803 ,R3820 ,R3823 ,R4078 ,R4079		RS1/16S103J
	R4088 ,R4089 ,R4092 ,R4093 ,R4156		RS1/16S103J
	R4167 ,R4173 ,R4175 ,R4176		RS1/16S103J
	R4203 ,R4204 ,R4209 ,R4253		RS1/16S103J
	R4264 ,R4265 ,R4348 -R4350 ,R4364		RS1/16S103J
	R4372 ,R4381 -R4383 ,R4385		RS1/16S103J
	R4391 ,R4392 ,R4423 ,R4440 ,R4455		RS1/16S103J
	R4472 ,R4474 ,R4475 ,R4551 ,R4555		RS1/16S103J
	R4578 ,R4579 ,R4611 -R4616		RS1/16S103J
	R4621 ,R4622 ,R4794 ,R4801 ,R4834		RS1/16S103J
	R4836		RS1/16S103J
	R3809 -R3812 ,R3814 ,R3816 ,R3845		RS1/16S104J
	R4143 ,R4226 ,R4494 ,R4765		RS1/16S104J
	R4229		RS1/16S105J
	R4016 ,R4050		RS1/16S111J
	R4354		RS1/16S112J
	R4789		RS1/16S121J
	R3804 ,R3832 ,R3833 ,R3914 ,R4066		RS1/16S122J
	R4283 ,R4284 ,R4291 ,R4340 ,R4476		RS1/16S122J
	R4478 ,R4482 ,R4550		RS1/16S122J
	R3805 ,R3807 ,R3819 ,R3935 ,R3941		RS1/16S123J
	R4215 ,R4362 ,R4459 ,R4517		RS1/16S123J
	R4769		RS1/16S124J
	R4591 ,R4592		RS1/16S132J
	R4217		RS1/16S133J
	R4522		RS1/16S1502D
	R4004 ,R4485		RS1/16S151J
	R3822 ,R3861 ,R3926 ,R4008 ,R4018		RS1/16S152J
	R4125 ,R4132 ,R4136 ,R4145 ,R4148		RS1/16S152J
	R4151 ,R4412 ,R4421 ,R4544 ,R4547		RS1/16S152J
	R4556 ,R4771		RS1/16S152J
	R3802 ,R3806 ,R3808 ,R3818 ,R4063		RS1/16S153J
	R4212 ,R4267 ,R4357 ,R4363 ,R4374		RS1/16S153J
	R4377 ,R4378 ,R4398 ,R4446 ,R4447		RS1/16S153J
	R4525 ,R4552 ,R4557 -R4560		RS1/16S153J
	R4456		RS1/16S154J
	R4003 ,R4021 ,R4031		RS1/16S162J
	R4251		RS1/16S163J
	R3862 ,R4006 ,R4028 ,R4038 ,R4110		RS1/16S182J
	R4126 ,R4280 ,R4287 ,R4402 ,R4411		RS1/16S182J
	R4500 ,R4524 ,R4527 ,R4529 ,R4531		RS1/16S182J
	R4533 ,R4703		RS1/16S182J
	R3850 ,R4055 ,R4057 ,R4214		RS1/16S183J
	R4220 ,R4221 ,R4228		RS1/16S183J
	R4407		RS1/16S201J
	R4105		RS1/16S202J
	R4222 ,R4451 ,R4452 ,R4481		RS1/16S203J
	R4393 ,R4465 ,R4711 ,R4712		RS1/16S221J
	R4717 ,R4718 ,R4723 ,R4773 ,R4790		RS1/16S221J
	R4803		RS1/16S221J
	R3856 ,R3857 ,R3859 ,R3860 ,R3863		RS1/16S222J
	R3944 ,R4010 ,R4011 ,R4024 ,R4034		RS1/16S222J
	R4098 ,R4103 ,R4106 ,R4112 ,R4116		RS1/16S222J
	R4241 ,R4244 ,R4275 ,R4298 ,R4337		RS1/16S222J
	R4360 ,R4365 ,R4369 ,R4375 ,R4379		RS1/16S222J
	R4413 ,R4427 ,R4469 ,R4496 ,R4512		RS1/16S222J
	R4532 ,R4580 ,R4586 ,R4590		RS1/16S222J
	R4742 -R4751		RS1/16S222J
	R3824 ,R3825 ,R4012 ,R4013 ,R4128		RS1/16S223J
	R4142 ,R4219 ,R4227 ,R4232 ,R4237		RS1/16S223J
	R4248 ,R4272 ,R4308 ,R4309 ,R4317		RS1/16S223J
	R4324 ,R4325 ,R4356 ,R4361		RS1/16S223J
	R4576 ,R4577 ,R4619 ,R4624 ,R4833		RS1/16S223J
	R4007 ,R4230		RS1/16S224J
	R4292 ,R4714 ,R4720 ,R4774		RS1/16S241J
	R4332 ,R4479 ,R4710 ,R4716		RS1/16S242J
	R4061 ,R4108 ,R4335		RS1/16S243J
	R3828 ,R3938 ,R3939 ,R4041 ,R4042		RS1/16S272J
	R4080 ,R4231 ,R4233 ,R4772 ,R4788		RS1/16S272J
	R4441 ,R4603 ,R4609		RS1/16S273J
	R4285 ,R4504		RS1/16S301J
	R4435 ,R4503 ,R4601		RS1/16S331J
	R3931 ,R4052 ,R4053 ,R4174		RS1/16S332J
	R4270 ,R4271 ,R4304 ,R4545		RS1/16S332J
	R3847 ,R4418 ,R4419 ,R4488 -R4490		RS1/16S333J
	R4493 ,R4791		RS1/16S333J
	R4225		RS1/16S362J
	R4434 ,R4600		RS1/16S391J
	R3836 ,R3948 ,R4040 ,R4044 ,R4096		RS1/16S392J
	R4101 ,R4250 ,R4387 ,R4388 ,R4495		RS1/16S392J
	R4064 ,R4224 ,R4436 ,R4831 ,R4835		RS1/16S393J
	R4276		RS1/16S394J
	R4104 ,R4113 ,R4502		RS1/16S431J
	R4082 ,R4085 ,R4119 ,R4457		RS1/16S432J
	R4107 ,R4602 ,R4608		RS1/16S433J
	R3877 -R3879 ,R3889 ,R3897 -R3899		RS1/16S470J
	R4505 ,R4507 ,R4542 ,R4581 ,R4583		RS1/16S470J
	R4095 ,R4100 ,R4111 ,R4320 ,R4338		RS1/16S471J
	R4477 ,R4515 ,R4617 ,R4618		RS1/16S471J
	R3848 ,R3916 ,R4054 ,R4056 ,R4059		RS1/16S472J
	R4070 ,R4090 ,R4094 ,R4303		RS1/16S472J
	R4314 ,R4315 ,R4322 ,R4323 ,R4329		RS1/16S472J
	R4384 ,R4397 ,R4454 ,R4727 ,R4766		RS1/16S472J
	R4787 ,R4812 ,R4814		RS1/16S472J
	R3821 ,R4166 ,R4168 ,R4236 ,R4450		RS1/16S473J
	R4620 ,R4623 ,R4625		RS1/16S473J
	R4223		RS1/16S474J
	R4796 ,R4798 ,R4807		RS1/16S510J
	R4311 ,R4333 ,R4334 ,R4339		RS1/16S511J
	R4312		RS1/16S512J
	R4213		RS1/16S513J
	R3933		RS1/16S5601D
	R4246 ,R4499		RS1/16S560J
	R3826 ,R3829 ,R3830 ,R4022 ,R4032		RS1/16S561J
	R4290 ,R4366 ,R4390 ,R4403 ,R4484		RS1/16S561J
	R3849 ,R3917 ,R4043 ,R4177 ,R4178		RS1/16S562J
	R4278 ,R4279 ,R4305 ,R4328 ,R4367		RS1/16S562J
	R4701 ,R4702 ,R4709 ,R4715		RS1/16S562J

Mark	No.	Description	Part No.
	R3846 ,R4437 ,R4492		RS1/16S563J
	R4252		RS1/16S564J
	R4806		RS1/16S620J
	R4330 ,R4605		RS1/16S621J
	R4326		RS1/16S622J
	R4313 ,R4327 ,R4491		RS1/16S623J
	R4523		RS1/16S6801D
	R4501		RS1/16S680J
	R4005 ,R4149 ,R4247 ,R4302 ,R4373		RS1/16S681J
	R4468 ,R4604 ,R4606 ,R4610		RS1/16S681J
	R4721 ,R4722 ,R4724 ,R4725		RS1/16S681J
	R4060 ,R4210 ,R4218 ,R4234 ,R4266		RS1/16S682J
	R4306 ,R4321 ,R4458 ,R4473		RS1/16S682J
	R4785 ,R4786 ,R4800		RS1/16S682J
	R4510 ,R4511		RS1/16S683J
	R4797 ,R4799 ,R4808		RS1/16S750J
	R4211 ,R4310 ,R4424		RS1/16S752J
	R4319		RS1/16S753J
	R4062		RS1/16S754J
	R4015 ,R4017 ,R4049 ,R4051 ,R4506		RS1/16S820J
	R3835 ,R4025 ,R4026 ,R4035 ,R4036		RS1/16S821J
	R4282 ,R4331 ,R4401		RS1/16S821J
	R3827 ,R4318 ,R4336 ,R4460 ,R4480		RS1/16S822J
	R4526 ,R4768		RS1/16S822J
	R4288		RS1/16S911J
	R3936 ,R3940		RS1/16S912J
	R4498		RS1/2S271J
	R4497		RS1/2S331J
	VR4201		VRTS6VS102
	VR3801		VRTS6VS222
	VR4202		VRTS6VS472
	VR4001		VRTS6VS474
	Other Resistors		RD1/4PU□□□J

OTHERS

	CN3801 ,CN3802	PLUG 44 -P	AKM1155
	K4001 -K4003 ,K4201 -K4203	TEST PIN	AKX9002
	K4401 -K4404 ,K4701 -K4706		AKX9002
	X4701	CRYSTAL RESONATOR(12MHz)	ASS1133

S DEFLECTION SERVICE ASSY

SEMICONDUCTORS

	IC303 ,IC601	NJM4558DXP
	IC302	PQ30RV11(A)
⚠	IC301	TA8638N
	Q315 ,Q316 ,Q604 ,Q605 ,Q804	2SA1145
	Q806	2SA1145
	Q808	2SA1837
	Q302 ,Q306 ,Q311 ,Q313 ,Q319	2SA933S
	Q321 ,Q322 ,Q325 ,Q326	2SA933S
x	Q607 ,Q608	
	Q607 ,Q608 ,Q611 ,Q751 ,Q801	2SA933S
	Q301 ,Q303 -Q305 ,Q307 ,Q310	2SC1740S
	Q312 ,Q318 ,Q320 ,Q327 ,Q602	2SC1740S
	Q614 ,Q752 ,Q802	2SC1740S
	Q314 ,Q317 ,Q603 ,Q606 ,Q803	2SC2705
	Q805 ,Q807	2SC2705
	Q308 ,Q601	2SC3332
	Q609	2SC3468
⚠	Q753 ,Q754	2SC4686A
	Q809	2SC4793
⚠	Q612	2SC5043
⚠	Q309	2SC5046
	Q324 ,Q613	2SC5197
	Q610	2SD1276A
	D302 ,D304 ,D601	10DF2
	D305 -D314 ,D320 ,D322 ,D323	1SS254
	D342 ,D343 ,D603 ,D608 ,D609	1SS254
	D611 ,D614 -D618 ,D621 ,D625	1SS254
	D751 -D757	1SS254
⚠	D622 ,D623	2NU41
	D321	BR3371XJ30A
⚠	D318	DD52RC
	D328 ,D329 ,D610	ERA22 -02
	D613	ERB06 -15
	D303 ,D602	ERB93 -0203
⚠	D316 ,D317	ERD07 -15
	D801 ,D802	MTZJ39
	D315 ,D327 ,D604 -D607	RD12ESB
	D319	RD5.1EB
	D624	RD5.1ESB1
	D612	RD7.5ESB2
	D627	RD9.1ESB1
	D803 -D806	S5688G

COILS AND FILTERS

	SG751	AEX1024
	L307 ,L308	ATH -059
x⚠	T601	
⚠	T301	ATK1126
⚠	T302 ,T602	ATK1127
⚠	L604	ATL1138
	L303 -L306 ,L309 ,L601 -L603	ATX1008
	L310 ,L605	LTA152J

CAPACITORS

⚠	C325	(100pF/2000V)	ACG -032
	C754 ,C755	(4700pF/2000V)	ACG1028
	C636	(1µF/160V)	ACH -372
⚠	C324 ,C604	(10µF/160V)	ACH1117
	C331 ,C335 ,C358 ,C606 ,C802		CCCSL101J50
	C336 ,C612		CCCSL101K2H
	C820 -C822		CCCSL220J50
	C815		CCCSL221J50
	C326 ,C342		CCCSL470J50
	C304		CEANP2R2M50
	C806 ,C807		CEAT101M25
	C817		CEAT470M50
	C334		CEHAQ1R0M2C
	C353 ,C616		CEHAT100M2D
	C619 ,C621 ,C752		CEHAT100M50
	C308 ,C337 ,C346 ,C349		CEHAT101M25
	C354 ,C355 ,C608 ,C630		CEHAT101M25
	C330 ,C605		CEHAT101M50
	C359		CEHAT102M35
	C357 ,C633		CEHAT1R0M50
	C620 ,C809 ,C818		CEHAT220M2D

Mark	No.	Description	Part No.
	C635		CEHAT220M50
	C618		CEHAT220M63
	C328 ,C624 ,C625		CEHAT221M25
	C332 ,C613		CEHAT330M35
	C313 ,C344		CEHAT331M16
	C810		CEHAT3R3M2C
	C310 ,C623 ,C751		CEHAT470M25
	C351 ,C352 ,C360 ,C361		CEHAT471M16
	C634		CEHAT4R7M2E
	C309 ,C341 ,C343		CEHAT4R7M50
⚠	C601 ,C602		CFPHW222H3D
⚠	C320		CFPHW332H3D
⚠	C321		CFPHW472H3D
⚠	C319 ,C322		CFPMW334J2G
	C323 ,C603		CFTXA105J50
	C312		CFTXA224J50
	C329		CFTXA683J50
	C311		CKCYB102K50
	C303		CKCYB103K50
	C607		CKCYB222K50
	C628		CKCYB332K2H
	C327 ,C611		CKCYB561K50
	C627		CKCYB682K50
	C637 ,C814 ,C819		CKCYE103P2H
	C615		CKCYE222P2H
	C315 -C318 ,C333 ,C338 -C340		CKCYF103Z50
	C345 ,C347 ,C348 ,C350 ,C356		CKCYF103Z50
	C609 ,C610 ,C614 ,C617 ,C622		CKCYF103Z50
	C626 ,C629 ,C632 ,C753 ,C801		CKCYF103Z50
	C803 ,C808		CKCYF103Z50
	C804 ,C805 ,C816		CKCYF473Z50
	C813		CQMA104K2E
	C307		CQMA471J50
	C811 ,C812		CQMA472K2E
	C302		CQMA561J50
	C305		CQMA682J50
	C301		CQPA102J2A
	C314		CQPA333J2A
	C306		CQPA821J2A

RESISTORS

	R769	(3.3kΩ ,1/2W)	ACN1011
	R661	(27Ω ,1/2W)	ACN1136
	R826		RD1/2MMF100J
	R815		RD1/2MMF332J
	R770 ,R772 -R776		RD1/2PM114J
	R631		RD1/2PM122J
	R365		RD1/2PM153J
	R648		RD1/2PM154J
	R771 ,R777 -R781		RD1/2PM184J
	R366 ,R618 ,R649		RD1/2PM223J
	R757 -R768		RD1/2PM224J
	R813 ,R814		RD1/2PM270J
	R801		RD1/2PM272J
	R823 ,R824		RD1/2PM2R2J
	R628		RD1/2PM333J
	R651		RD1/2PM334J

Mark	No.	Description	Part No.
	R617		RD1/2PM563J
⚠	R395 ,R634		RD1/4LMF100J
	R635		RD1/4MUF100J
	R827 ,R828		RD1/4MUF560J
⚠	R630		RN1/2PC3902F
⚠	R629		RN1/2PC4302F
	R328		RN1/4PC1002F
	R645 ,R646 ,R650		RN1/4PC1003F
	R371		RN1/4PC1102F
	R370 ,R419 ,R639 ,R782		RN1/4PC1202F
	R318		RN1/4PC1203F
	R302		RN1/4PC1303F
	R372		RN1/4PC1503F
	R783		RN1/4PC1801F
	R753		RN1/4PC2202F
	R388		RN1/4PC2203F
	R327		RN1/4PC2702F
	R386 ,R752		RN1/4PC3302F
	R387		RN1/4PC3901F
	R755		RN1/4PC4701F
	R754		RN1/4PC56R0F
	R373 ,R421 ,R640		RN1/4PC6801F
	R644		RN1/4PC7502F
	R301 ,R647		RN1/4PC8201F
	R338 ,R604		RS1MMF100J
	R809 ,R810		RS1MMF472J
	R355		RS2MMF180J
	R336 ,R337 ,R339 ,R602 ,R603		RS2MMF1R0J
	R621 ,R622		RS2MMF1R8J
	R333 ,R601		RS2MMF222J
	R819 -R821		RS2MMF271J
	R358 ,R359		RS2MMF2R2J
	R658 ,R659		RS2MMF820J
	R660		RS2MMFR56J
x	R637 -R640		
x	R642 -R645		
	R822 ,R825 ,R831		RS3LMF471J
⚠	R392		RT5PZ561K
x	VR601		
x	VR602		
	VR301		VRTHS6VS222
	VR602 ,VR603		VRTHS6VS223
	VR303		VRTB6VS223
	VR302		VRTHS6VS473
	Other Resistors		RD1/4PU□□□J

OTHERS

	J602	H.V.RETURN WIRE	ADX2486
	J601	1P READ WIRE	ADX2492
	301 ,309 ,601	ISOLATION SHEET	AEB1358
	602	NYLON BINDER	AEC -093
⚠	CN301 -CN303	PLUG 3 -P	AKM1055
	CN751	PLUG 3 -P	AKM1055
	107	SHIELD CASE	ANK1510
	305 ,607	SCREW	BBZ30P080FCU
	CN304	PLUG 12 -P	KM250MA12
	CN305	PLUG 12 -P	KM250MA13

Mark	No.	Description	Part No.
	CN309	PLUG 4 -P	KM250MA4
	CN307	PLUG 5 -P	KM250MA5
	CN308	PLUG 6 -P	KM250MA6
	CN306	PLUG 6 -P	KM250MA6R
	CN801	PLUG 9 -P	KM250MA9
	304 ,605	SCREW	PMB30P160FZK
	306 ,604 ,606 ,752 ,802	SCREW	PMZ30P100FZK
	608	SCREW	VPZ40P120FMC

P R CRT DRIVE ASSY

SEMICONDUCTORS

	IC5101		TDA6120Q
	Q5101		2SC1740S
	D5101 -D5106		S5688G

COILS AND FILTERS

	SG5101 ,SG5102	SPARK GAP	AEX1024
	L5102		LAU2R2J
	L5101		LAU3R3J
	L5103		LTA562J

CAPACITORS

	C5108	(1000pF/2000V)	ACG1001
	C5107 ,C5114	(22µF/250V)	ACH1318
	C5103		CCCSL120J50
	C5101		CCCSL390J50
	C5102		CCCSL7R0D50
	C5110		CEAT101M25
	C5109		CEAT222M16
	C5111 ,C5113		CKCYE103P2H
	C5104 ,C5106		CKCYF103Z50

RESISTORS

	R5115	(47Ω ,1/2W)	ACN1129
	R5116	(220Ω ,1/2W)	ACN1131
	R5118	(470Ω ,1/2W)	ACN1133
	R5117		RD1/2LMF100J
	R5101		RS1MMF270J
	R5112 -R5114		RS3LMF822J
	VR5101		VRTHS6VS222
	Other Resistors		RD1/4PU□□□J

OTHERS

	5104	CRT SOCKET	AKG1005
	5104 -5108	SCREW	BBZ30P080FCU
	5103	SCREW	BPZ30P100FZK
	CN5105	PLUG 3 -P	KM250MA3
	CN5106	PLUG 3 -P	KM250MA3R
	CN5102	PLUG 5 -P	KM250MA5B
	CN5101	PLUG 5 -P	KM250MA5R
	5101 ,5102	SCREW	PMB30P160FZK

Q G CRT DRIVE ASSY

SEMICONDUCTORS

	IC5151		TDA6120Q
	Q5151		2SC1740S
	D5151 -D5156		S5688G

COILS AND FILTERS

	SG5151 ,SG5152		AEX1024
	L5152		LAU2R2J
	L5151		LAU3R3J
	L5153		LTA562J

CAPACITORS

	C5158		ACG1001
	C5157 ,C5164		ACH1318
	C5153		CCCSL120J50
	C5151		CCCSL560J50
	C5152		CCCSL7R0D50
	C5160		CEAT101M25
	C5159		CEAT222M16
	C5161 ,C5163		CKCYE103P2H
	C5154 ,C5156		CKCYF103Z50

RESISTORS

	R5164		ACN1129
	R5165		ACN1131
	R5168		ACN1133
	R5167		RD1/2LMF100J
	R5151		RS1MMF270J
	R5161 -R5163		RS3LMF822J
	VR5151		VRTHS6VS222
	Other Resistors		RD1/4PU□□□J

OTHERS

	J5152	4P HOUSING WIRE	ADX2493
	5154	CRT SOCKET	AKG1005
	5154 -5158	SCREW	BBZ30P080FCU
	5153	SCREW	BPZ30P100FZK
	CN5156	PLUG 3 -P	KM250MA3
	CN5157	PLUG 3 -P	KM250MA3B
	CN5151	PLUG 5 -P	KM250MA5
	5151 ,5152	SCREW	PMB30P160FZK

R B CRT DRIVE ASSY

SEMICONDUCTORS

	IC5201		TDA6120Q
	Q5201		2SC1740S
	D5201 -D5206		S5688G

COILS AND FILTERS

	SG5201 ,SG5202		AEX1024
	L5202		LAU1R0J
	L5201		LAU4R7J
	L5203		LTA562J

CAPACITORS

	C5208		ACG1001
	C5207 ,C5214		ACH1318
	C5201 -C5203		CCCSL220J50
	C5210		CEAT101M25
	C5209		CEAT222M16
	C5211 ,C5213		CKCYE103P2H
	C5204 ,C5206		CKCYF103Z50

RESISTORS

	R5214	(47Ω ,1/2W)	ACN1129
	R5215	(220Ω ,1/2W)	ACN1131
	R5218	(470Ω ,1/2W)	ACN1133
	R5217		RD1/2LMF100J
	R5201		RS1MMF270J
	R5211 -R5213		RS3LMF822J
	VR5201		VRTHS6VS222
	Other Resistors		RD1/4PU□□□J

Mark	No.	Description	Part No.
OTHERS			
	J5203	4P HOUSING WIRE	ADX2493
	5204	CRT SOCKET	AKG1005
	5204 -5208	SCREW	BBZ30P080FCU
	5203	SCREW	BPZ30P100FZK
	CN5206	PLUG 3 -P	KM250MA3
	CN5207	PLUG 3 -P	KM250MA3B
	CN5201	PLUG 5 -P	KM250MA5B
	5201 ,5202	SCREW	PMB30P160FZK

O AC IN ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC101 ,IC102		PC817CD
	Q105		2SA933S
	Q101 -Q104 ,Q106		2SC1740S
	D107 -D110 ,D112 -D117		1SS254
	D119 -D123		1SS254
	D118		BR3371XJ30A
	D101 ,D102		D5SBA60(B)
	D111		HZS6B1L
	D103 -D106		S5688G
COILS AND FILTERS			
⚠	L101 -L104		ATF1183
TRANSFORMERS			
⚠	T101	POWER TRANSFORMER	ATT1281
SWITCHES AND RELAYS			
	RY103 ,RY104		ASR1049
	RY101 ,RY102		ASR1050
CAPACITORS			
⚠	C101 -C104	(0.22μF/250V)	ACE1107
	C105 -C112	(0.01μF/250V)	ACG -501
	C119		CEHAT100M50
	C113		CEHAT102M16
	C115 -C118 ,C120		CEHAT470M25
	C114		CKCYB103K50
RESISTORS			
	R102 ,R104	(2.2Ω ,5W)	ACN1128
	R105		BCN1022
	R106 ,R107		RD1/4MUF222J
	R101 ,R103		RT5PZ1R8K
	Other Resistors		RD1/4PU□□□J
OTHERS			
	J101	10P HOUSING WIRE	ADX2488
⚠	FU104	(500mA ,125V)	AEK1010
⚠	FU103	(800mA ,125V)	AEK1011
⚠	FU101	(10A ,250V)	AEK1069
⚠	FU102	(4A ,125V)	REK1082
	CN104	PLUG 2 -P	AKM1127
	CN103	PLUG 3 -P	AKM1128
	CN101 ,CN102	PLUG2 -P	AKM1156
	H103 -H108	FUSE CLIP	AKR1003
	H101 ,H102	FUSE HOLDER	AKR1007
	8010	SCREW	BBZ30P100FZK

Mark	No.	Description	Part No.

TV FRONT END SYSTEM UNIT

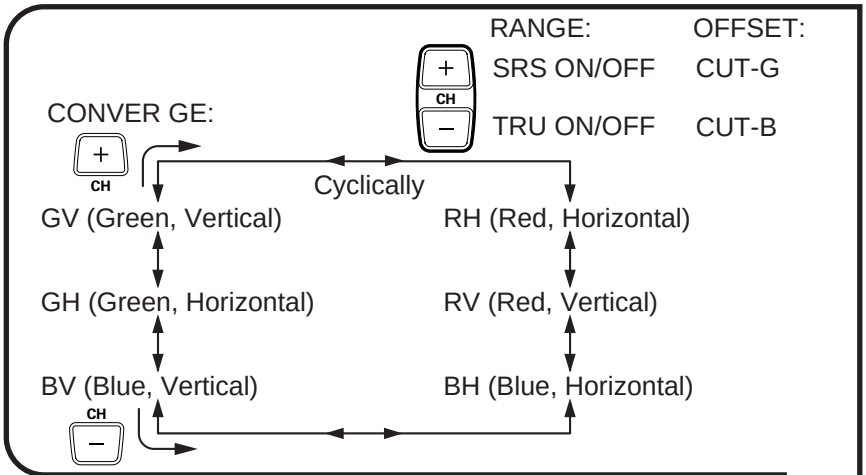
No service parts.

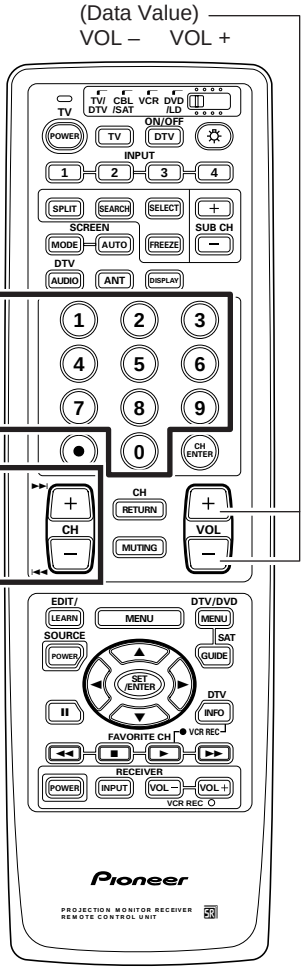
RF SW

No service parts.

6. ADJUSTMENT

■ Key Indication of the Remote Control Unit

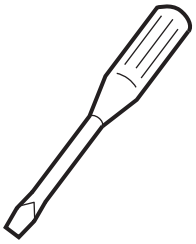
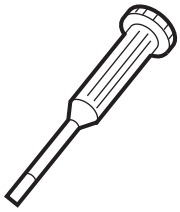
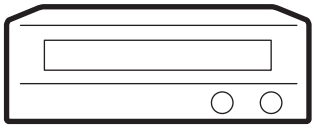
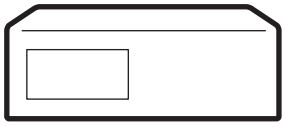
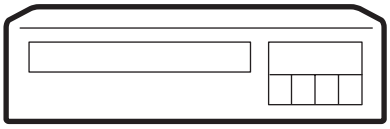
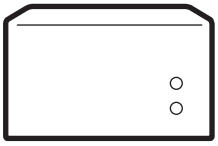
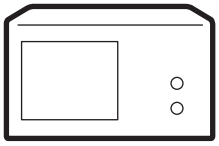
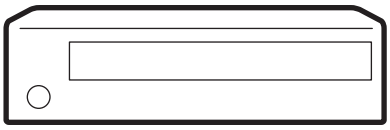
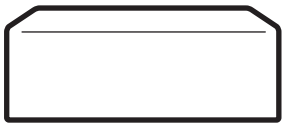




• Adjustment Items

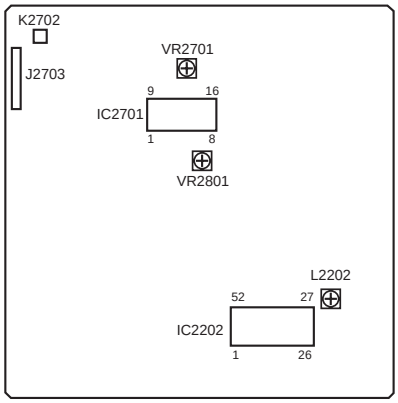
Adjustment		Adjustment Name	NU MERIC KEYS	ADJUSTMENT ITEMS	TYPE					
RANGE	OFFSET				GH	GV	RH	RV	BH	BV
	○	CUT-R	0	STATIC	○	○	○	○	○	○
○		VOL0								
○	○	Color	1	SKEW → 3D SKEW → 5D SKEW	○	○	○	○	○	○
○	○	TINT	2	BOW → 4D BOW → 6D BOW	○	○	○	○	○	○
○	○	Contrast	3	SUB KEY → M S KEY → 3S KEY → M 3S KEY	○	○	○	○	○	○
○	○	Bright	4	KEY → MID KEY → 3D KEY → M 3D KEY	○	○	○	○	○	○
○	○	Sharpness	5	SUB PIN → M S PIN → 4S PIN → M 4S PIN	○	○	○	○	○	○
○		3D YC, 3D NR Level	6	PIN → MID PIN → 4D PIN → M 4D PIN	○	○	○	○	○	○
	○	Detail								
○		VOL20	7	LIN → MID LIN → 6D LIN	○	○	○	○	○	○
	○	S.V.M								
○		VOL30	8	SIZE → MID SIZE → 5D SIZE	○	○	○	○	○	○
	○	DRV-R								
○		S.V.M	9							
	○	DRV-B								

■ Jigs and Measuring Instruments

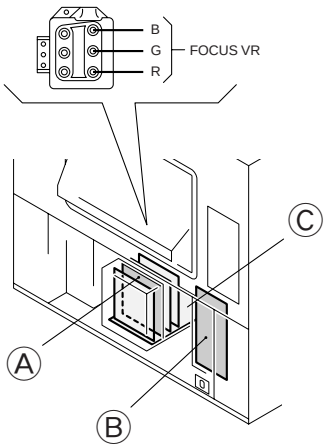
 Remote control unit (CU-SD105)	 ⊖ Screwdriver	 ⊖ Adjustment screwdriver
 Color bar generator	 D.DC. Volt meter	 LD player
 Monoscope	 Dual trace oscilloscope	 Frequency counter
 For HD Signal generator		

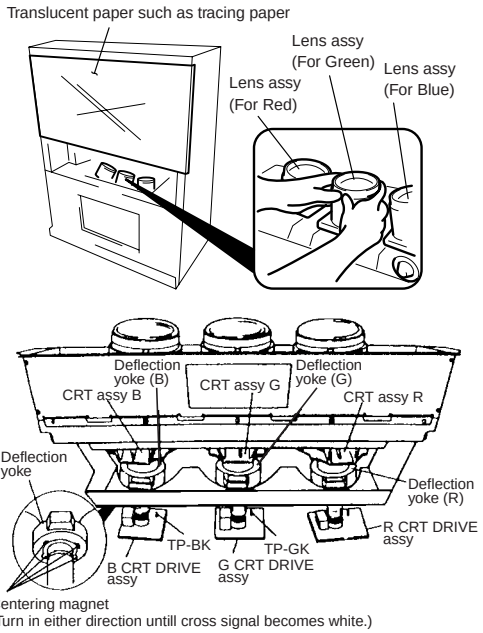
■ Assembly Adjustment Location and Items

Ⓐ TUNER • u-COM ASSY (A SIDE)

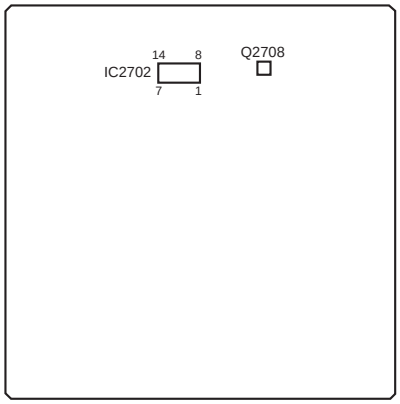


FOCUS VR (VR1)



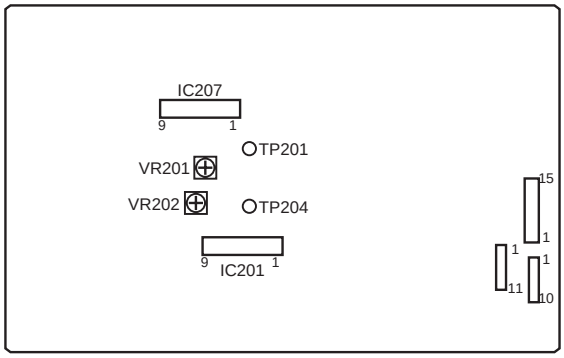


TUNER • u-COM ASSY (B SIDE)



Ⓒ VIDEO ASSY (A SIDE)

Ⓑ POWER SUPPLY ASSY



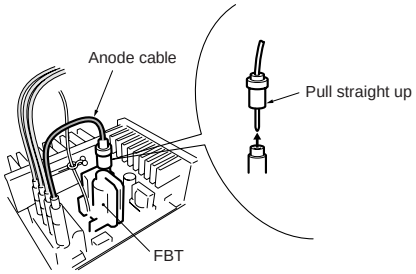
MEASURING METHOD

Disconnect the FBT anode cable as shown below.
Measure at the point where the cable enters the FBT.

Caution: Take extra precaution when measuring the voltage. High voltage are also present in surrounding circuit boards. (CRT DRIVE assy, POWER SUPPLY assy).

SERVICEMAN WARNING

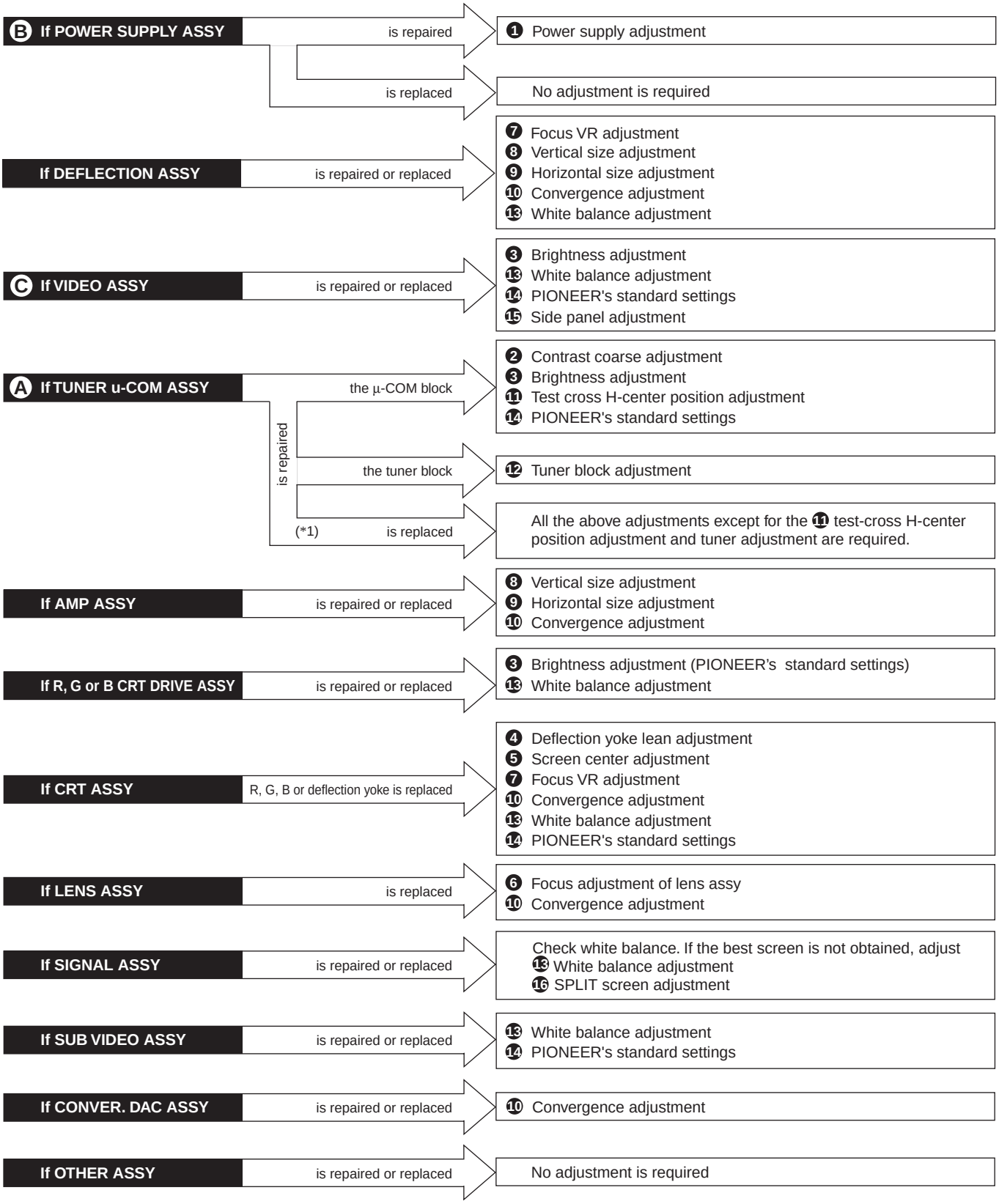
Before removing the anode cable, turn off the power, unplug the AC plug and let the unit discharge for more than 1 minute.



Note:
When reconnecting the cable, proceed in the reverse order. After reconnecting, tug on the cable to check that it is secure.

❶ Power supply adjustment
❷ Contrast coarse adjustment
❸ Brightness adjustment (PIONEER's standard settings)
❹ Deflection yoke lean adjustment
❺ Screen center adjustment
❻ Focus adjustment of lens assy
❼ Focus VR adjustment
❽ Vertical size adjustment
❾ Horizontal size adjustment
❿ Convergence adjustment
⓫ Test cross H-center position adjustment
⓬ Tuner block adjustment
⓭ White balance adjustment
⓮ PIONEER's standard settings
⓯ Side panel adjustment (Screen size 4:3)
⓰ SPLIT screen adjustment

■ Assembly Adjustment Location Guide



(*1) When replacing the tuner u-com assembly, mount the IC2204 (24LC32A:E^2 PROM)on the current assembly to the new one to facilitate adjustments.

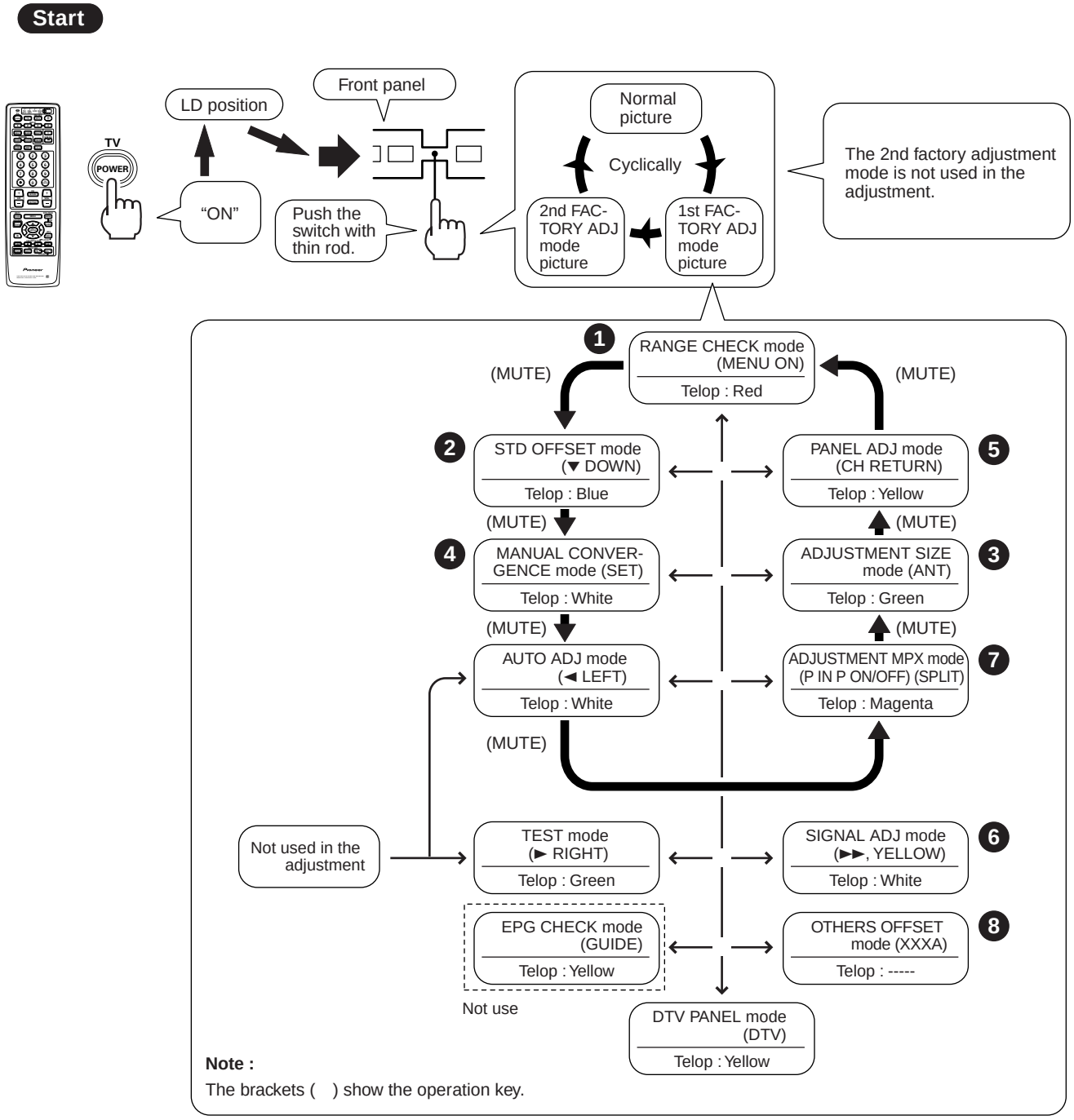
■ Factory ADJ Mode

Start ..... Start adjusting

1st FAC ..... Select 1st factory adjustment mode, then adjust.

Select 1st FACTORY ADJ Mode

Selecting the mode for adjustment operations.

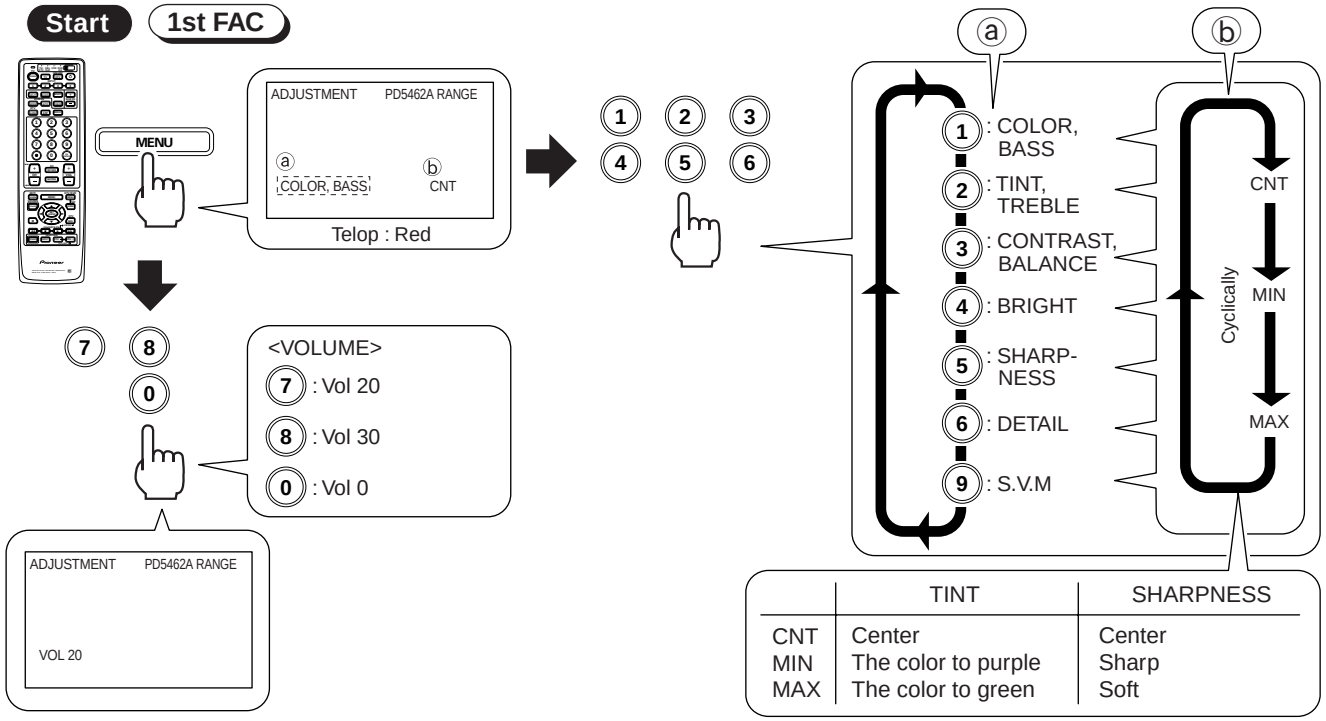


Note :

The brackets ( ) show the operation key.

1 Adjustment Range Mode

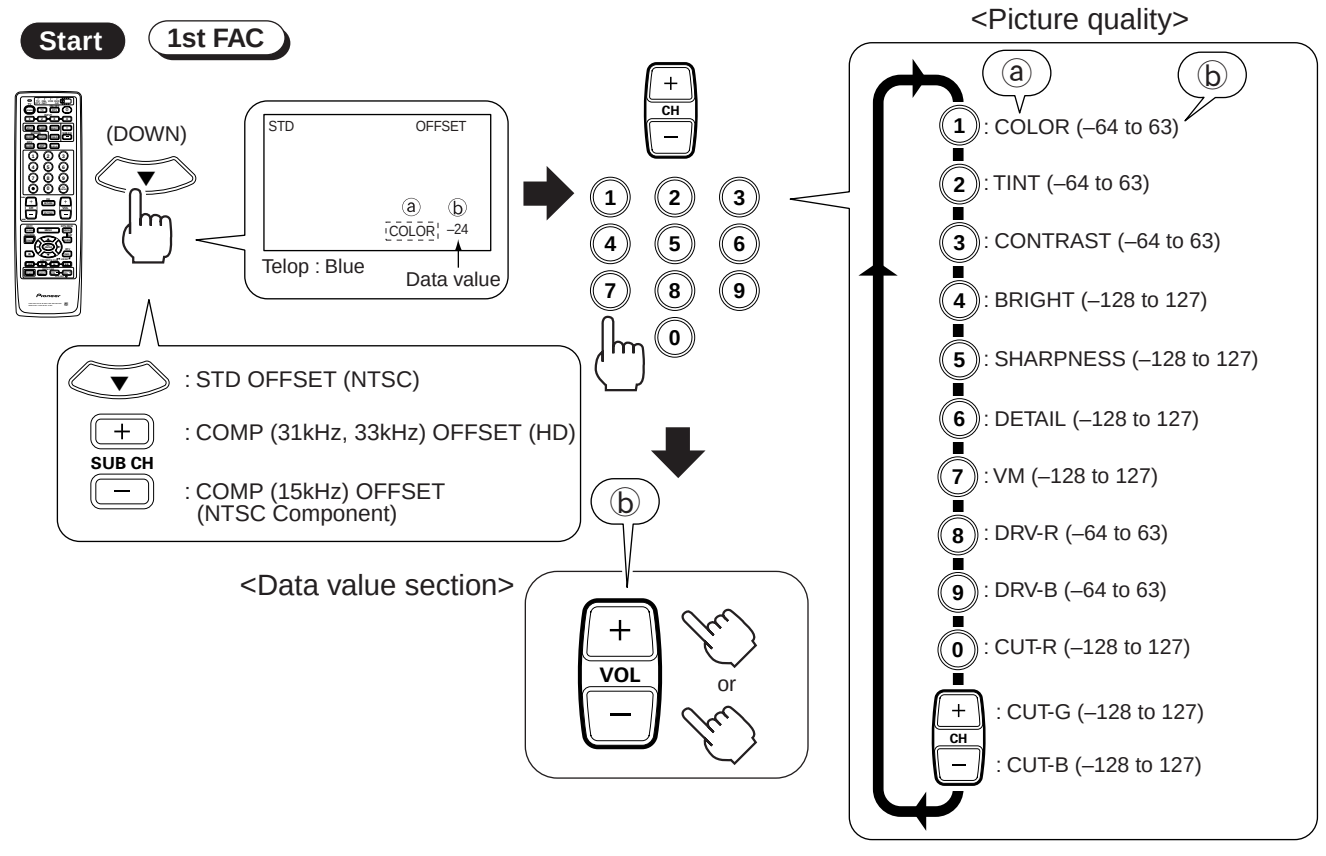
Picture quality, eyc., Change amount check made operating.



	TINT	SHARPNESS
CNT	Center	Center
MIN	The color to purple	Sharp
MAX	The color to green	Soft

2 Adjustment OFFSET Mode

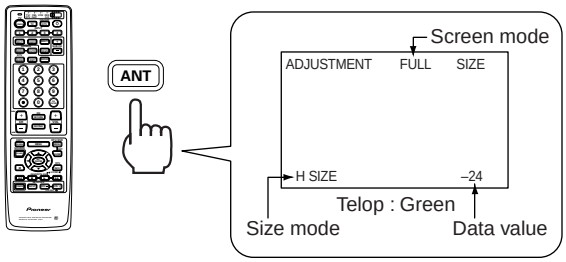
This mode is to set the standard picture quality for a normal picture.



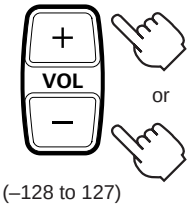
3 Size Mode

Start → 1st FAC

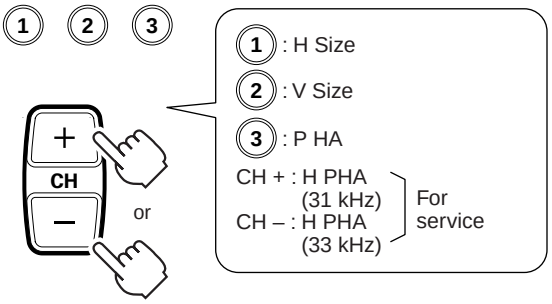
- Mode for roughly adjusting the horizontal and vertical sizes of the main deflection.
- In this mode, the color is green only, screen size is FULL and the contrast is +10.
- The above settings are cleared when this mode is exited.



<Data value section>



<Size mode>



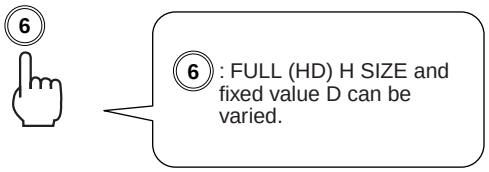


Table on H SIZE and V SIZE data

Picture quality mode	H SIZE	V SIZE
NATURAL	A	B
ZOOM	A	B
CINEMA	A	B
FULL	A	B
FULL (MD)	A+D	B

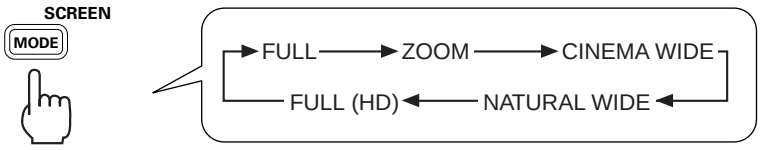
A, B: are adjustment values.
D: Fixed value.

Table on H PHA data

	Component input (INPUT1, INPUT2)			DTV	Others (NTSC system)
	15 kHz	31 kHz	33 kHz		
PHA	C	E	F	G	C

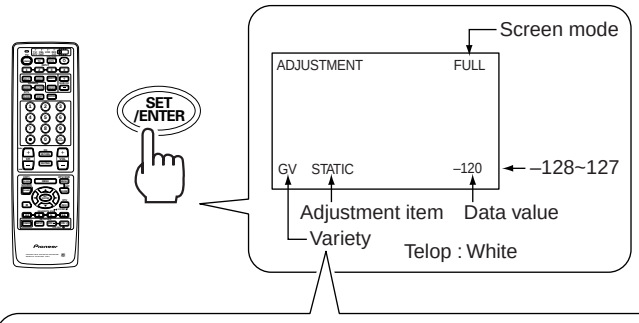
C: Adjustment value
G: Fixed value
E, F: Fixed value + arbitrary service values

<Screen mode>

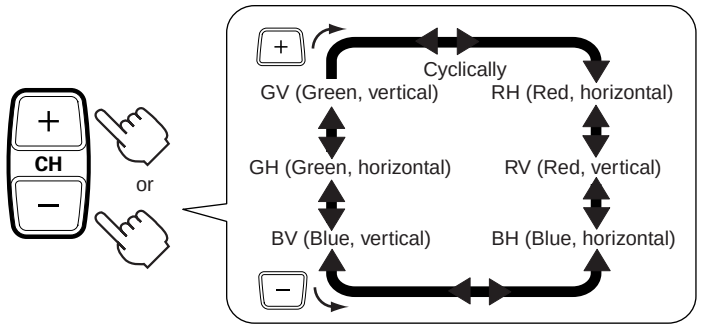


4 Convergence Setting Mode

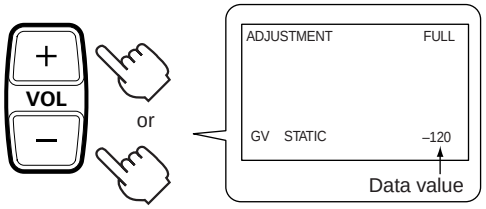
Start → 1st FAC



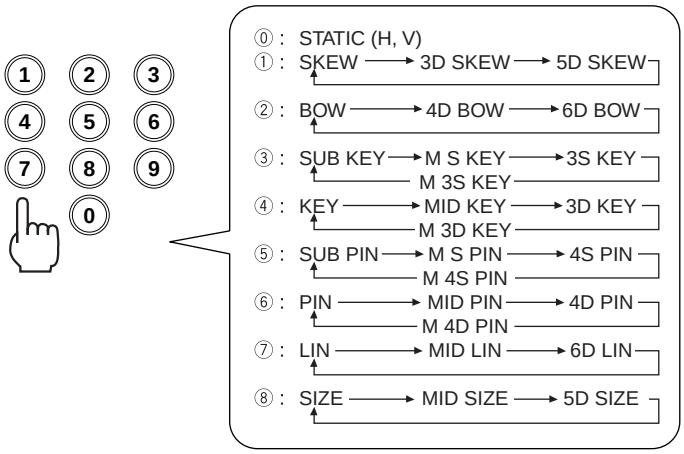
<Variety section>



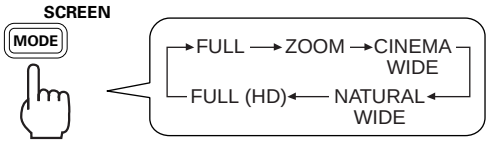
<Data value section>



<Adjustment item section>



<Screen mode>



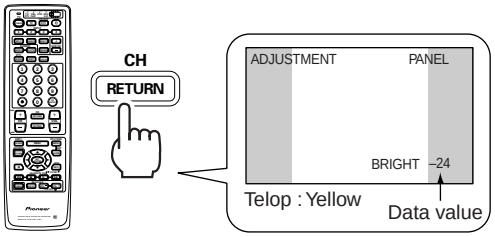
<CRT control>

SEARCH : Red ON/OFF
SELECT : Green ON/OFF
FREEZE : Blue ON/OFF

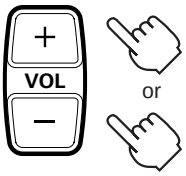
5 Panel Adjustment Mode

Start **1st FAC**

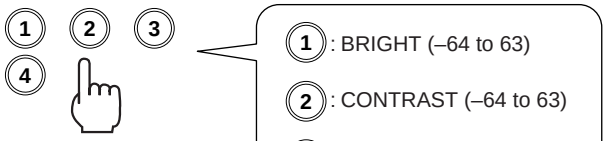
- Mode for adjusting the brightness, width, and position of the gray part (panel) of the 4:3 normal screen.



<Data value section>



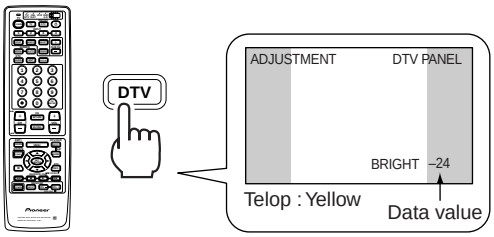
<Adjustment item section>



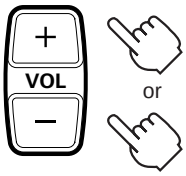
6 DTV Panel Adjustment Mode (When option is mounted)

Start **1st FAC**

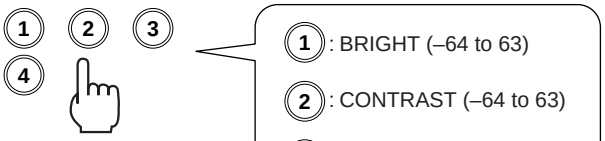
- Mode for adjusting the brightness, width, and position of the gray part (panel) of the 4:3 normal screen of the DTV tuner.



<Data value section>



<Adjustment item section>



7 Adjustment MPX Mode

For adjusting the TV tuner MPX decoder section

Start → 1st FAC

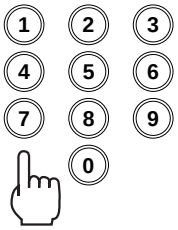
SPLIT

(P IN P)

ADJUSTMENT		MPX F.E 1	
1 ATT	9	5 SAP LPF	8
2 ST VCO	27	6 WIDE BAN	12
3 SAP VC	10	7 SPECTRA	23
4 ST LPF	26		

00001

Telop : Magenta



Auto adjust

ADJUSTMENT		MPX F.E 1	
1 ATT	9	5 SAP LPF	8
2 ST VCO	29	6 WIDE BAN	12
3 SAP VC	9	7 SPECTRA	21
4 ST LPF	30		

00001
COMPLETE !

Yellow

"NG"

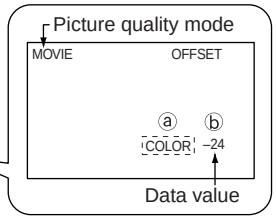
ADJUSTMENT		MPX F.E 1	
1 ATT	9	5 SAP LPF	8
2 ST VCO	25	6 WIDE BAN	12
3 SAP VC	8	7 SPECTRA	23
4 ST LPF	30		

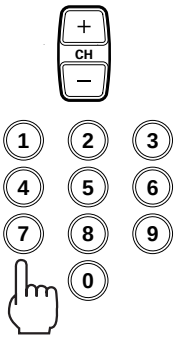
00001
TRY AGAIN !!

Red

8 Others OFFSET Mode

Start → 1st FAC





OFFSET MODE

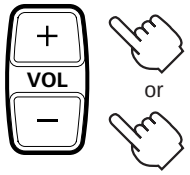
Direct Key	Screen Display	Picture quality mode
◀◀ (Blue)	MOVIE	MOVIE OFFSET MODE
■ (Green)	GAME	GAME OFFSET MODE
▶ (Red)	TV	TV OFFSET MODE
DTV INFO	COLOR TEMP (STD)	COLOR TEMP LOW for STD & (GAME) OFFSET MODE
DTV MENU	COLOR TEMP (MOVIE)	COLOR TEMP LOW for MOVIE OFFSET MODE

<Picture quality>

ⓐ ⓑ

1 : COLOR (–64 to 63)
2 : TINT (–64 to 63)
3 : CONTRAST (–64 to 63)
4 : BRIGHT (–128 to 127)
5 : SHARPNESS (–128 to 127)
6 : DETAIL (–128 to 127)
7 : VM (–128 to 127)
8 : DRV-R (–64 to 63)
9 : DRV-B (–64 to 63)
0 : CUT-R (–128 to 127)
+ CH – : CUT-G (–128 to 127)
: CUT-B (–128 to 127)

<Data value section>

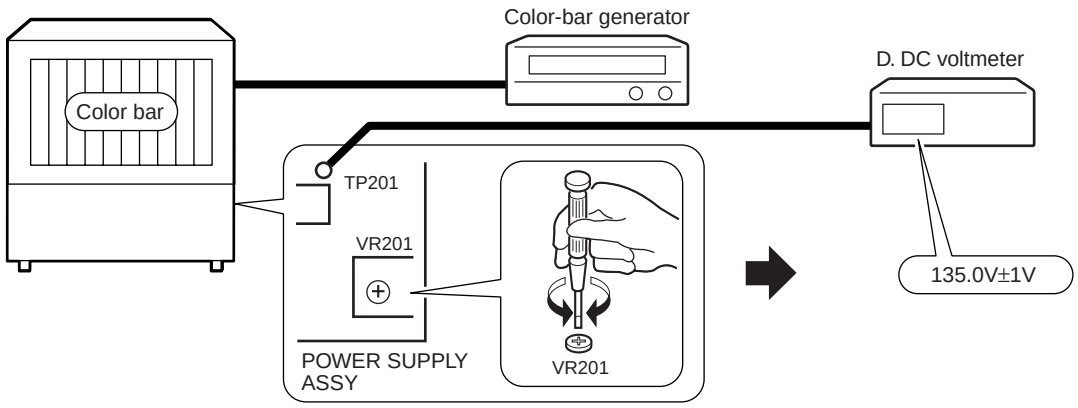


■ Adjustment

1 Power supply adjustment

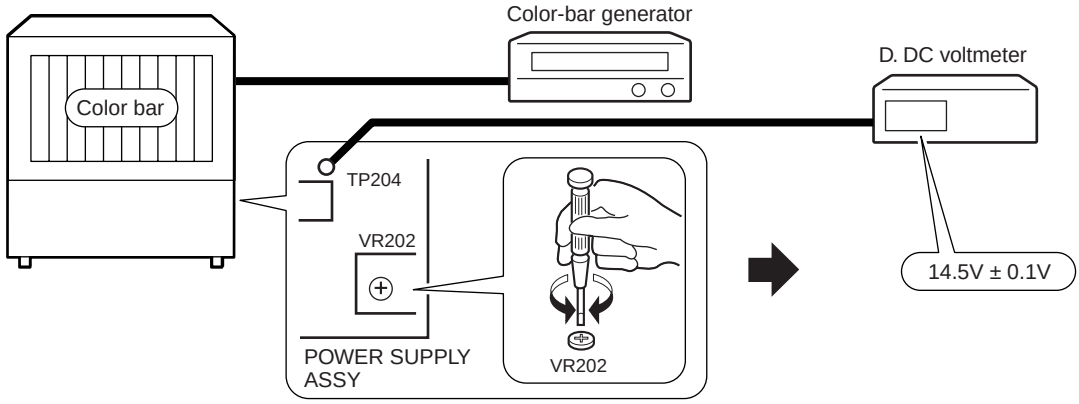
1 -1 135V Power supply adjustment

Start



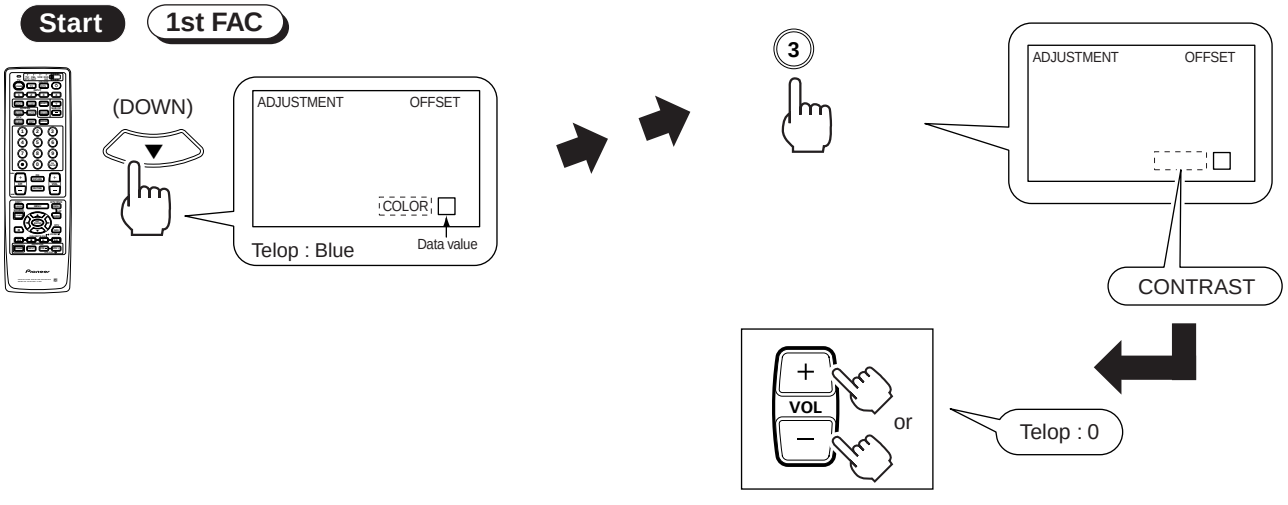
1 -2 14.5V Power supply adjustment

Start



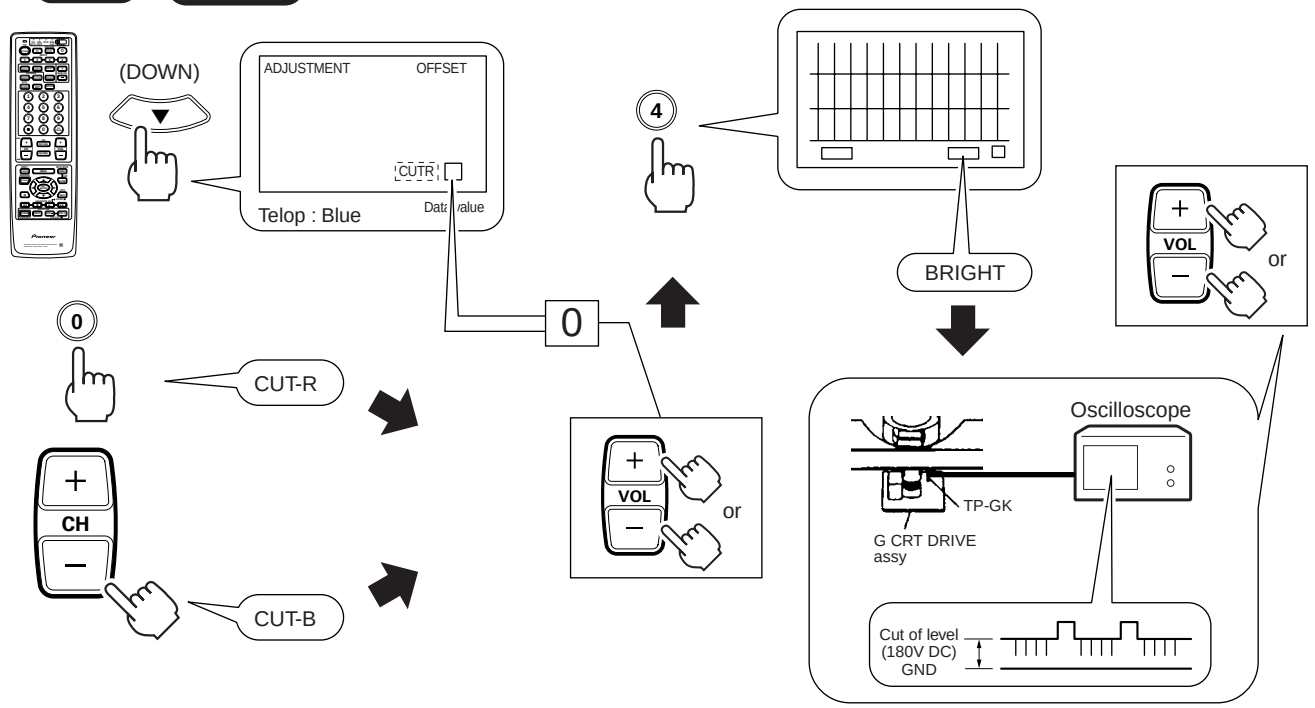
2 Contrast coarse adjustment

Start 1st FAC



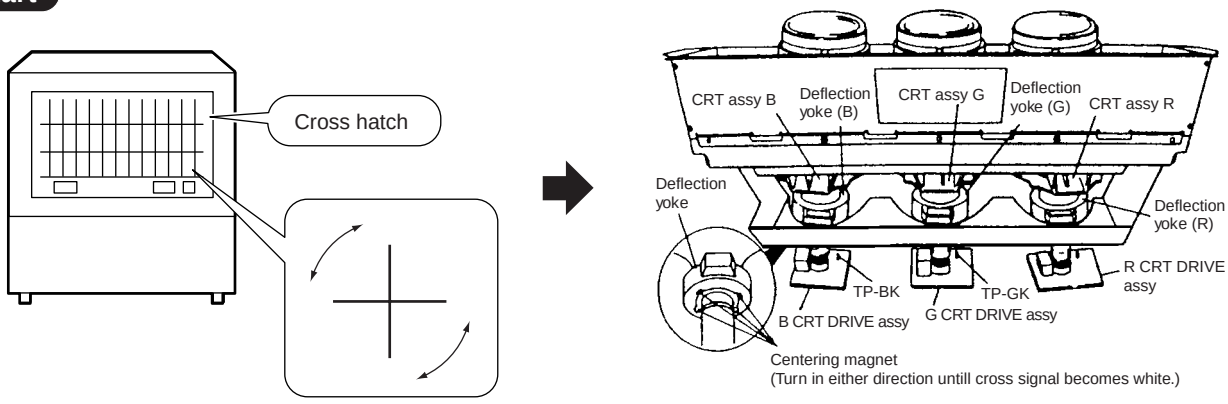
3 Brightness adjustment (PIONEER's standard settings)

Start → 1st FAC



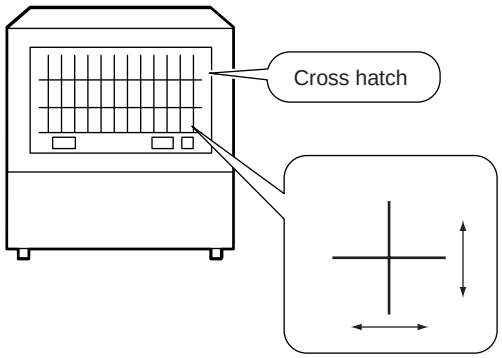
4 Deflection yoke lean adjustment

Start

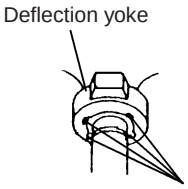


5 Screen center adjustment

Start



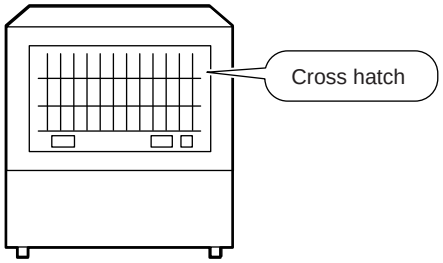
- For Red or Blue adjustment, turn 1st FACTORY ADJ mode ON and then OFF to place the convergence POSITION at the center of the adjustable range.
- Move the centering magnet of the deflection yoke for the replaced color so that the horizontal and vertical lines at the center of the screen align with the lines for a color not replaced.

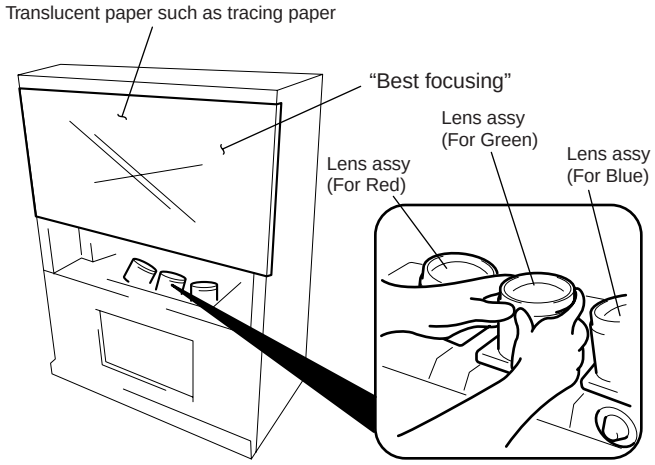


(Turn in either direction until cross signal becomes white.)

6 Focus adjustment of lens assy

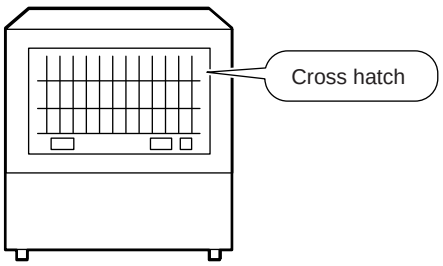
Start



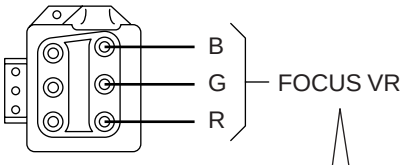


7 Focus VR adjustment

Start



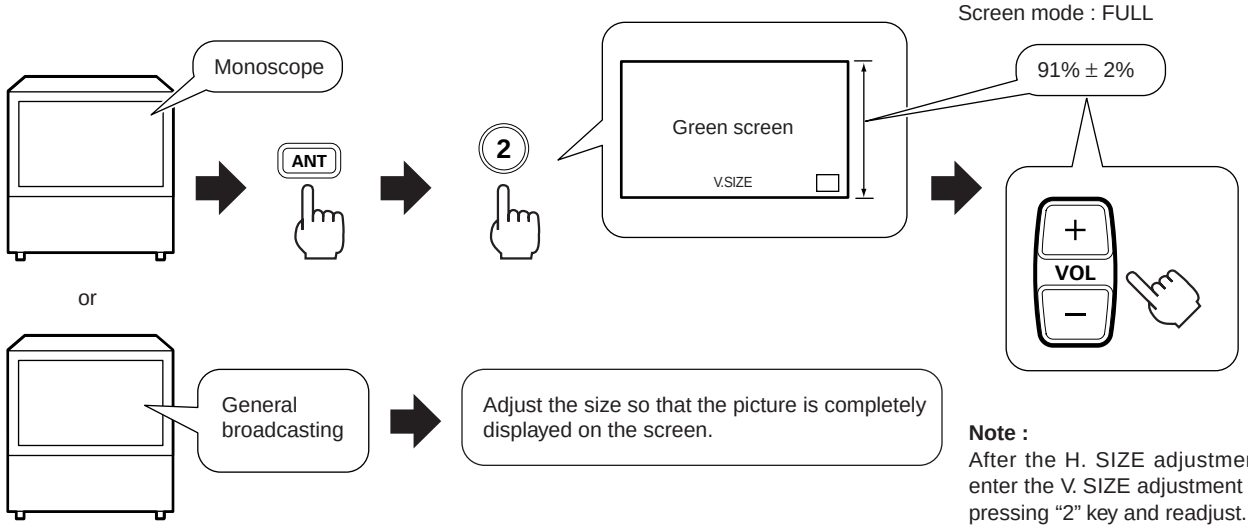
FOCUS VR (VR1)



Turn the focus VR for best focusing.

8 Vertical size adjustment

Start → 1st FAC

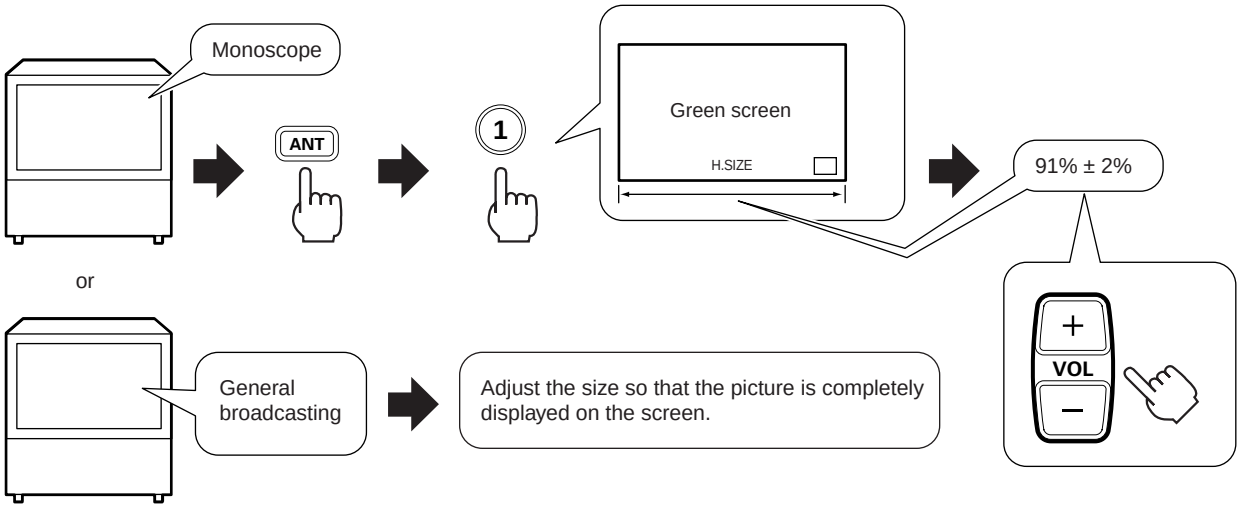


Note :
After the V. SIZE adjustment, enter the H. SIZE adjustment by pressing “1” key and readjust.
Screen mode : FULL

Note :
After the H. SIZE adjustment, enter the V. SIZE adjustment by pressing “2” key and readjust.

9 Horizontal size adjustment

Start → 1st FAC



Note :
Screen mode : FULL

10 Convergence adjustment

10 -1 Green line adjustment 1st FAC

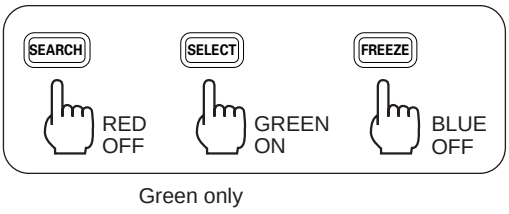
• Adjustment in the horizontal direction

Start

Note :
The convergence for this device must be adjusted for each screen size FULL (NTSC, 4:3 NORMAL), ZOOM (NTSC), CINEMA WIDE (NTSC), NATURAL WIDE (NTSC), FULL (HD) (33.75 kHz, DTV).

● Horizontal correction adjustment of the green line

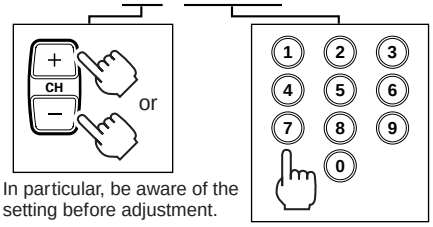
- See ④ Convergence Setting Mode in the Factory ADJ mode.
- Input cross-hatch signals to this device's video input terminal.
- The green line serves as the reference line in the adjustment of red and blue. Perform this accurately.
  Adjust the convergence of the green line using only green.



Green only

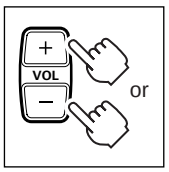
• Select the Adjustment item

GH - STATIC



In particular, be aware of the setting before adjustment.

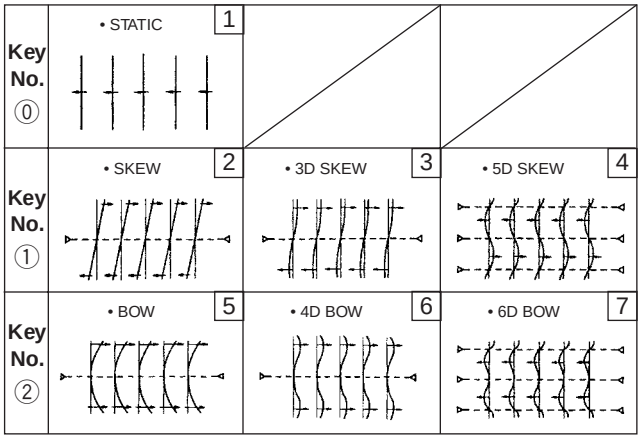
• Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of H-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

	Adjustment Items	Screen No.	Adjustment Method
Center-line Adjustment	1 GH-STATIC	1	• Adjust the center vertical line to the screen center position.
	2 GH-SKEW	2	• Adjust so that the green vertical line at the center becomes a straight line with neither distortion nor tilting.
	3 GH-BOW	5	
	4 (GH-3D SKEW)	3	**Note:** Do not adjust items 4 to 7.
	5 (GH-4D BOW)	6	
	6 (GH-5D SKEW)	4	
	7 (GH-6D BOW)	7	
Line-interval Adjustment	1 GH-SIZE	8	• Adjust so that the intervals of the green vertical lines in the right and left sections of the screen are symmetrical and correct.
	2 GH-MID SIZE	9	
	3 GH-LIN	11	
	4 GH-MID LIN	12	
	5 (GH-5D SIZE)	10	**Note:** Do not adjust items 5 and 6.
	6 (GH-6D LIN)	13	

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

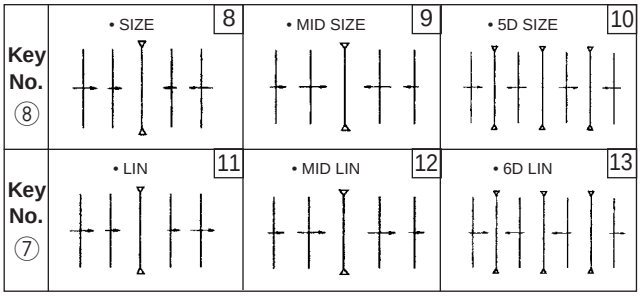
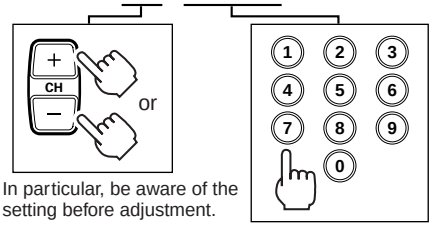


Fig. 1. Horizontal correction (1)

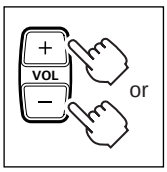
● Horizontal correction adjustment of the green line

• Select the Adjustment item
GH - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

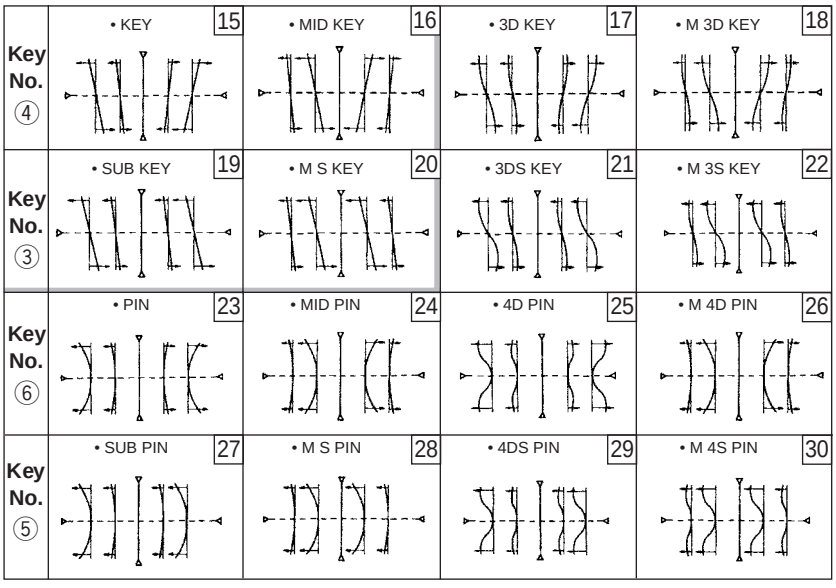


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of H-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

		Adjustment Items	Screen No.	Adjustment Method
Lean Adjustment	1	GH-KEY	15	• Adjust so that the vertical green lines on the left and right sides of the screen do not tilt.
	2	GH-MID KEY *1	16	
	3	GH-SUB KEY	19	
	4	GH-M S KEY *1	20	
Distortion Adjustment	1	GH-3D KEY	17	• Adjust so that the vertical green lines on the left and right sides of the screen become straight with no distortion.
	2	(GH-M 3D KEY) *1	18	
	3	GH-3DS KEY	21	
	4	(GH-M 3S KEY) *1	22	
	5	GH-PIN	23	
	6	GH-MID PIN *1	24	
	7	GH-SUB PIN	27	
	8	GH-M S PIN *1	28	
	9	GH-4D PIN	25	
	10	(GH-M 4D PIN) *1	26	
	11	GH-4DS PIN	29	
	12	(GH-M 4S PIN) *1	30	**Note:** Do not adjust items 2, 4, 10 and 12.

*1 : Adjust taking note of the green vertical lines at 1/4 of the left and right sides of the screen.

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

Fig. 2. Horizontal correction (2)

10 -2 Green line adjustment 1st FAC

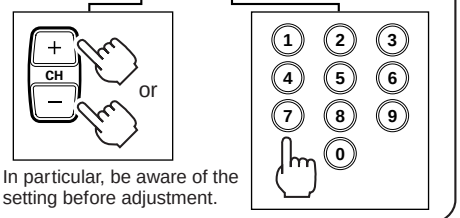
• Adjustment in the vertical direction

Start

● Vertical correction adjustment of the green line

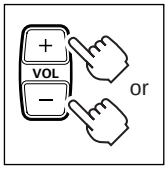
• Select the Adjustment item

GV - STATIC



In particular, be aware of the setting before adjustment.

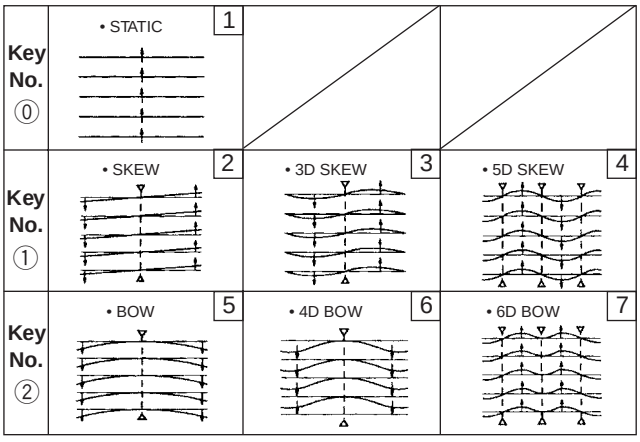
• Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Items	Screen No.	Adjustment Method
Center-line Adjustment	1	GV-STATIC	1	• Adjust the center horizontal line to the center of the screen.
	2	GV-SKEW	2	• Adjust so that the green vertical line at the center becomes a straight line with neither distortion nor tilting.
	3	GV-BOW	5	
	4	(GV-3D SKEW)	3	
	5	(GV-4D BOW)	6	
	6	(GV-5D SKEW)	4	**Note:** Do not adjust items 6 and 7.
	7	(GV-6D BOW)	7	
Line-interval Adjustment	1	GV-SIZE	8	• Adjust so that the intervals of the green horizontal lines at the top and bottom of the screen are symmetrical and correct.
	2	GV-LIN	11	
	3	GV-MID SIZE	9	
	4	GV-MID LIN	12	
	5	(GV-5D SIZE)	10	**Note:** Do not adjust items 5 and 6.
	6	(GV-6D LIN)	13	

■ Screen



●Screen's changes in the vertical direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

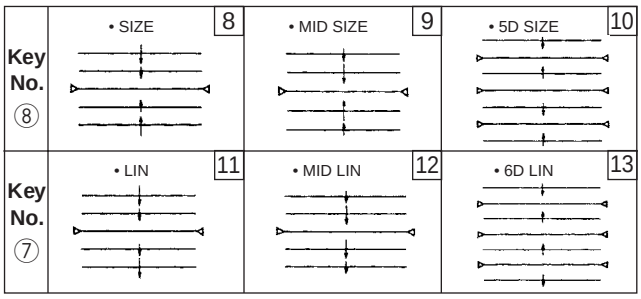
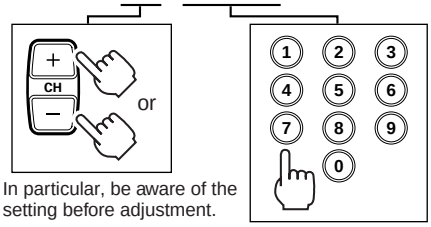


Fig. 3. Vertical correction (1)

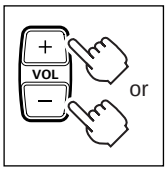
● Vertical correction adjustment of the green line

• Select the Adjustment item
GV - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

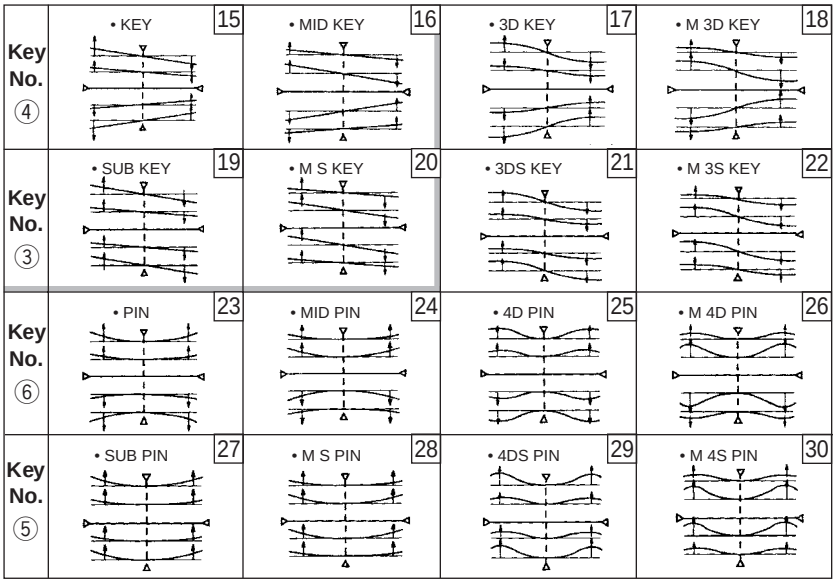


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Items	Screen No.	Adjustment Method
Lean Adjustment	1	GV-KEY	15	• Adjust so that the green horizontal lines at the top and bottom of the screen do not tilt.
	2	GV-MID KEY *2	16	
	3	GV-SUB KEY	19	
	4	GV-M S KEY *2	20	
Distortion Adjustment	1	GV-3D KEY	17	• Adjust so that the green horizontal lines at the top and bottom of the screen become straight with no distortion.
	2	(GV-M 3D KEY) *2	18	
	3	GV-3DS KEY	21	
	4	(GV-M 3S KEY) *2	22	
	5	GV-PIN	23	
	6	GV-MID PIN *2	24	
	7	GV-4D PIN	25	
	8	(GV-M 4D PIN) *2	26	
	9	GV-SUB PIN	27	
	10	GV-M S PIN *2	28	
	11	GV-4DS PIN	29	
	12	(GV-M 4S PIN) *2	30	**Note:** Do not adjust items 2, 4, 8 and 12.

*2 : Adjust taking note of the green horizontal lines at 1/4 of the left and right sides of the screen.

■ Screen



●Screen's changes in the vertical direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

Fig. 4. Vartical correction (2)

10 -3 Red line adjustment (1st FAC)

• Adjustment in the horizontal direction

Start

● Horizontal correction adjustment of the red line

- See ④ Convergence Setting Mode in the Factory ADJ mode.
- Input cross-hatch signals to this device's video input terminal.
- Adjust the convergence of the red line using the green and red lines.

SEARCH → RED ON
SELECT → GREEN ON
FREEZE → BLUE ON
RED + GREEN

• Select the Adjustment item

RH - STATIC

CH + / CH − or 1 2 3 4 5 6 7 8 9 0

In particular, be aware of the setting before adjustment.

• Adjust the Data value

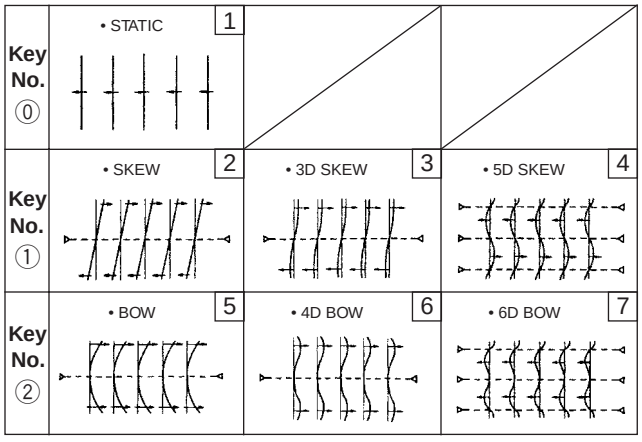
VOL + / VOL − or

Note :

- Overlap the green line with the red line, so that the line becomes yellow.
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is of H-STATICnot possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Center-line Adjustment	1	RH-STATIC	1	• Adjust the red center to match the green center.
	2	RH-SKEW	2	• Overlap the red vertical line at the center with the green vertical line.
	3	RH-BOW	5	
	4	(RH-3D SKEW)	3	
	5	(RH-4D BOW)	6	
	6	(RH-5D SKEW)	4	**Note:** Do not adjust items 6 and 7.
	7	(RH-6D BOW)	7	
Line-interval Adjustment	1	RH-SIZE	8	• Adjust the interval at the center of the red vertical line to the interval of the green vertical line.
	2	RH-LIN	11	
	3	RH-MID SIZE	9	
	4	RH-MID LIN	12	
	5	(RH-5D SIZE)	10	**Note:** Do not adjust items 5 and 6.
	6	(RH-6D LIN)	13	

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

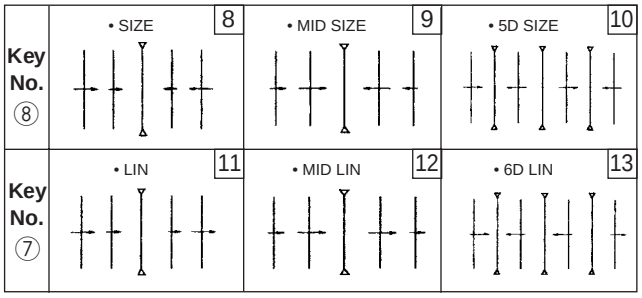
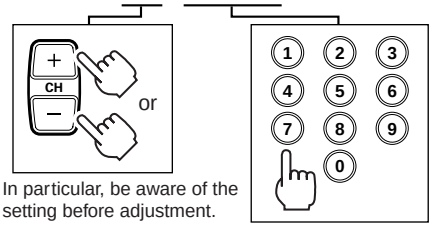


Fig. 5. Horizontal correction (1)

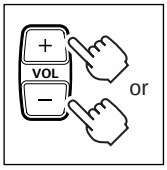
● Horizontal correction adjustment of the red line

• Select the Adjustment item
RH - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

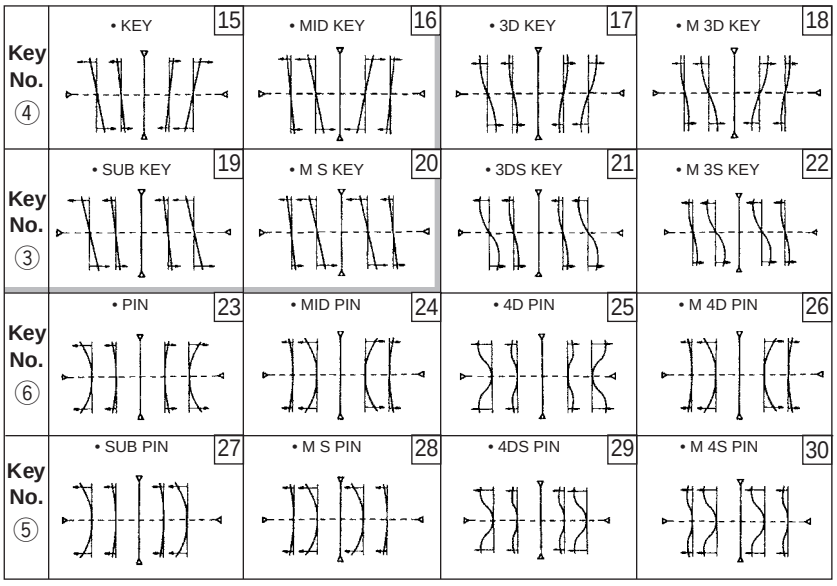


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of H-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Lean Adjustment	1	RH-KEY	15	• Adjust so that the red vertical lines at the top and bottom of the screen do not tilt.
	2	RH-MID KEY *3	16	
	3	RH-SUB KEY	19	
	4	RH-M S KEY *3	20	
Distortion Adjustment	1	RH-3D KEY	17	• Adjust so that the red vertical line at the top and bottom of the screen overlap with the green vertical lines, and becomes a straight line with no distortion.
	2	(RH-M 3D KEY) *3	18	
	3	RH-3DS KEY	21	
	4	(RH-M 3S KEY) *3	22	
	5	RH-PIN	23	
	6	RH-MID PIN *3	24	
	7	RH-4D PIN	25	
	8	(RH-M 4D PIN) *3	26	
	9	RH-SUB PIN	27	
	10	RH-M S PIN *3	28	
	11	(RH-4DS PIN) *3	29	
	12	RH-M 4S PIN	30	**Note:** Do not adjust items 2, 4, 8 and 11.

*3 : Adjust taking note of the red horizontal lines at 1/4 of the left and right sides of the screen.

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

Fig. 6. Horizontal correction (2)

10 -4 Red line adjustment 1st FAC

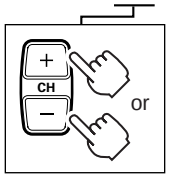
• Adjustment in the vertical direction

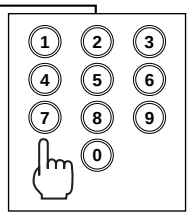
Start

● Vertical correction adjustment of the red line

• Select the Adjustment item

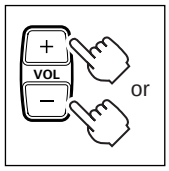
RV - STATIC





In particular, be aware of the setting before adjustment.

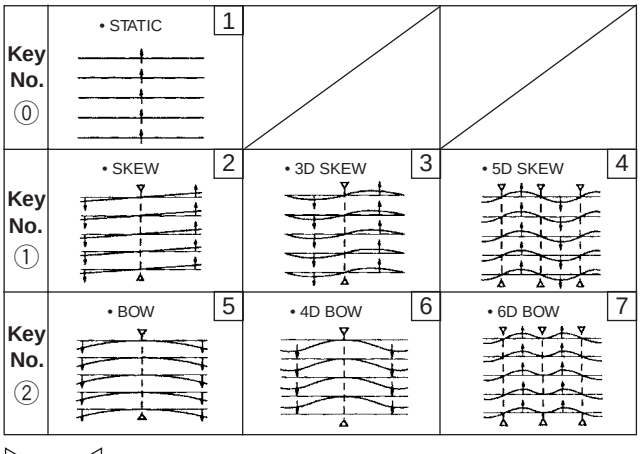
• Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Center-line Adjustment	1	RV-STATIC	1	• Adjust the red center to match the green center.
	2	RV-SKEW	2	• Adjust so that the red horizontal line at the center overlaps with the green horizontal line.
	3	RV-BOW	5	
	4	RV-3D SKEW	3	
	5	RV-4D BOW	6	
	6	(RV-5D SKEW)	4	**Note:** Do not adjust items 6 to 7.
	7	(RV-6D BOW)	7	
Line-interval Adjustment	1	RV-SIZE	8	• Adjust the interval at the center of the red vertical line to the interval of the green vertical line.
	2	RV-LIN	11	
	3	RV-MID SIZE	9	
	4	RV-MID LIN	12	
	5	(RV-5D SKEW)	10	**Note:** Do not adjust items 5 and 6.
	6	(RV-6D LIN)	13	

■ Screen



= Fixed position

●Screen's changes in the vertical direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

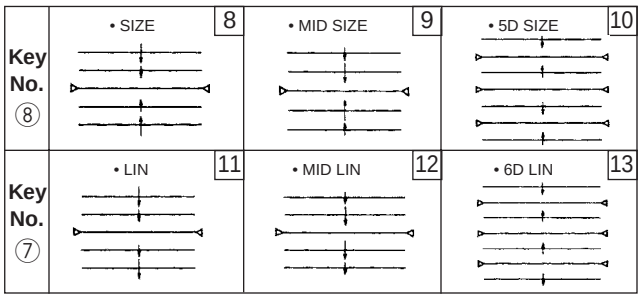
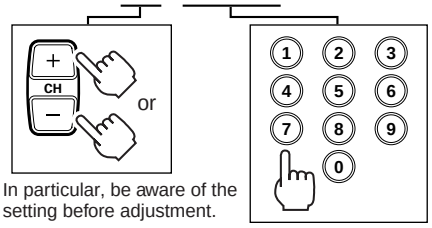


Fig. 7. Vertical correction (1)

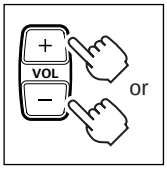
● Vertical correction adjustment of the red line

• Select the Adjustment item
RV - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

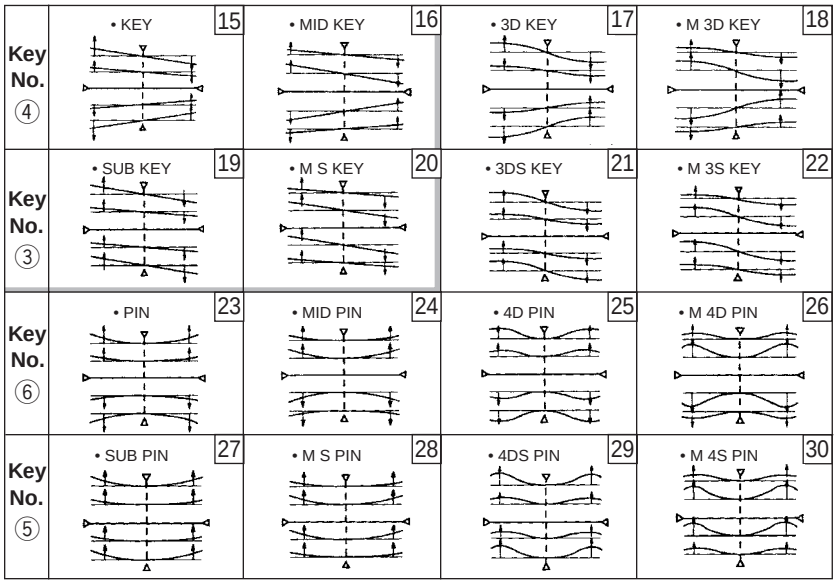


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Lean Adjustment	1	RV-KEY	15	• Adjust so that the red horizontal lines at the left and right of the screen do not tilt.
	2	RV-MID KEY *4	16	
	3	RV-SUB KEY	19	
	4	RV-M S KEY *4	20	
Distortion Adjustment	1	RV-3D KEY	17	• Adjust so that the red horizontal lines at the left and right of the screen overlap with the green horizontal lines, and become a straight line with no distortion.
	2	(RV-M 3D KEY) *4	18	
	3	RV-3DS KEY	21	
	4	(RV-M 3S KEY) *4	22	
	5	RV-PIN	23	
	6	RV-MID PIN *4	24	
	7	RV-4D PIN	25	
	8	(RV-M 4D PIN) *4	26	
	9	RV-SUB PIN	27	
	10	RV-M S PIN *4	28	
	11	RV-4DS PIN	29	**Note:** Do not adjust items 2, 4, 8 and 12.
	12	(RV-M 4S PIN) *4	30	

*4 : Adjust taking note of the red horizontal lines at 1/4 of the left and right sides of the screen.

■ Screen



● Screen's changes in the vertical direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

Fig. 8. Vartical correction (2)

10 -5 Blue line adjustment 1st FAC

• Adjustment in the horizontal direction

Start

● Horizontal correction adjustment of the blue line

• See ④ Convergence Setting Mode in the Factory ADJ mode.
• Input cross-hatch signals to this device's video input terminal.

SEARCH → RED OFF
SELECT → GREEN ON
FREEZE → BLUE ON

GREEN + BLUE

• Select the Adjustment item
BH - STATIC

CH + / CH − or 1 2 3 4 5 6 7 8 9 0

In particular, be aware of the setting before adjustment.

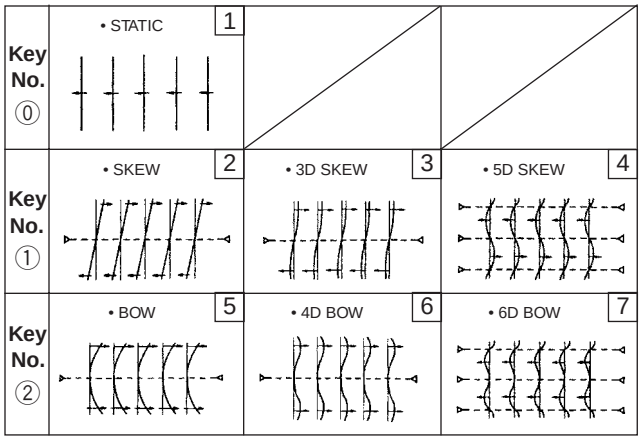
• Adjust the Data value

VOL + / VOL − or

Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of H-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Center-line Adjustment	1	BH-STATIC	1	• Adjust the blue center to match the green center.
	2	BH-SKEW	2	• Overlap the blue vertical line at the center with the green vertical line.
	3	BH-BOW	5	
	4	BH-3D SKEW	3	
	1	BH-4D BOW	6	
	6	BH-5D SKEW	4	**Note:** Do not adjust items 6 and 7.
	7	BH-6D BOW	7	
Line-interval Adjustment	1	BH-SIZE	8	• Adjust the interval at the center of the blue vertical line to the interval of the green vertical line.
	2	BH-LIN	11	
	3	BH-MID SIZE	9	
	4	BH-MID LIN	12	
	5	(BH-5D SIZE)	10	**Note:** Do not adjust items 5 and 6.
	6	(BH-6D LIN)	13	

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

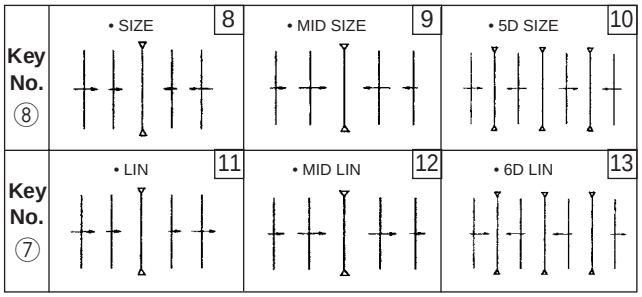
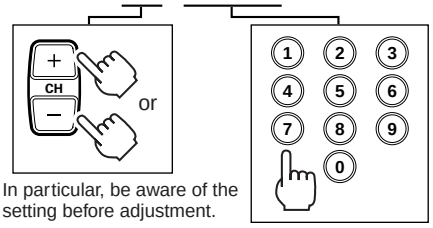


Fig. 9. Horizontal correction (1)

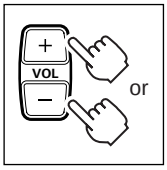
● Horizontal correction and adjustment of blue line

• Select the Adjustment item
BH - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

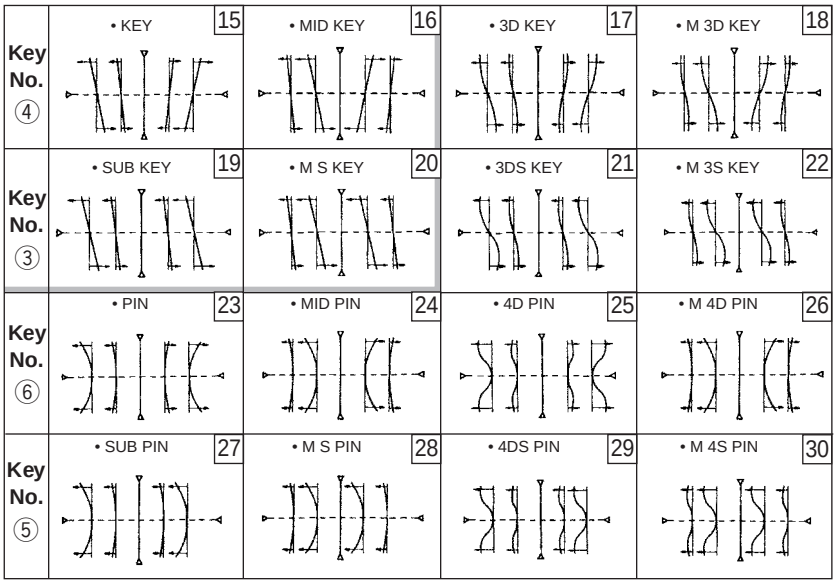


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of H-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Lean Adjustment	1	BH-KEY	15	• Adjust so that the blue vertical lines at the top and bottom of the screen do not tilt.
	2	BH-MID KEY *5	16	
	3	BH-SUB KEY	19	
	4	BH-M S KEY *5	20	
Distortion Adjustment	1	BH-3D KEY	17	• Adjust so that the blue vertical lines at the top and bottom of the screen overlap with the green vertical lines, and become a straight line with no distortion.
	2	(BH-M 3D KEY) *5	18	
	3	BH-3DS KEY	21	
	4	(BH-M 3S KEY) *5	22	
	5	BH-PIN	23	
	6	BH-MID PIN *5	24	
	7	BH-4D PIN	25	
	8	(BH-M 4D PIN) *5	26	
	9	BH-SUB PIN	27	
	10	BH-M S PIN *5	28	
	11	BH-4DS PIN	29	
	12	(BH-M 4S PIN) *5	30	Note:Do not adjust items 2, 4, 8 and 12.

*5 : Adjust taking note of the blue vertical lines at 1/4 of the left and right sides of the screen.

■ Screen



●Screen's changes in the horizontal direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

= Fixed position

Fig. 10. Horizontal correction (2)

10-6 Blue line adjustment 1st FAC

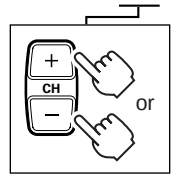
• Adjustment in the vertical direction

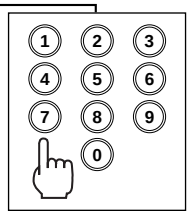
Start

● Vertical correction adjustment of the blue line

• Select the Adjustment item

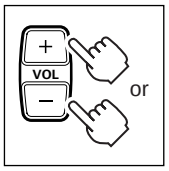
BV - STATIC





In particular, be aware of the setting before adjustment.

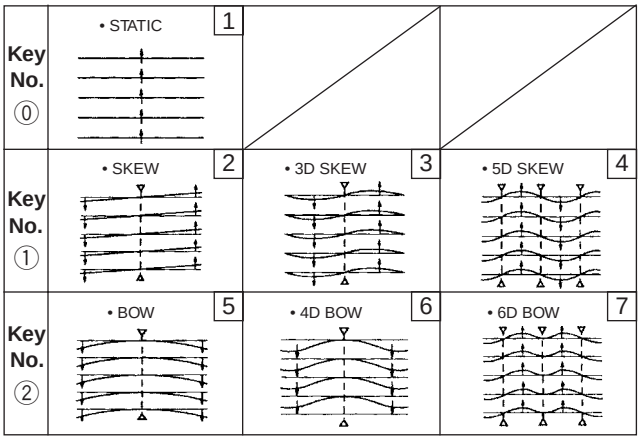
• Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STATIC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Center-line Adjustment	1	BV-STATIC	1	• Adjust the blue center to match the green center.
	2	BV-SKEW	2	• Adjust so that the blue horizontal line at the center overlaps with the green horizontal line.
	3	BV-BOW	5	
	4	BV-3D SKEW	3	
	5	BV-4D BOW	6	
	6	BV-5D SKEW	4	
	7	BV-6D BOW	7	
Line-interval Adjustment	1	BV-SIZE	8	• Adjust the interval at the center of the blue horizontal line to the interval of the green horizontal line.
	2	BV-LIN	11	
	3	BV-MID SIZE	9	
	4	BV-MID LIN	12	
	5	(BV-5D SIZE)	10	**Note:** Do not adjust items 5 and 6.
	6	(BV-6D LIN)	13	

■ Screen



●Screen's changes in the vertical direction when manual convergence adjustment is mode

The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

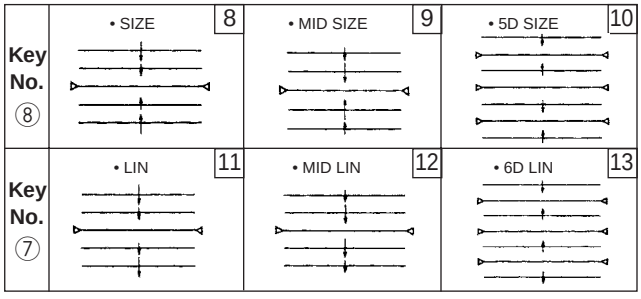
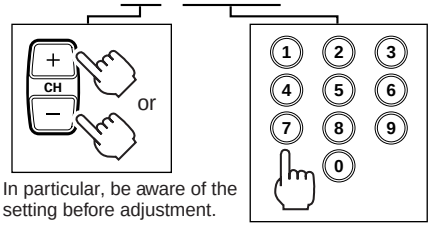


Fig. 11. Vertical correction (1)

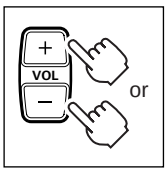
● Vertical correction adjustment of the blue line

• Select the Adjustment item
BV - SUB PIN



In particular, be aware of the setting before adjustment.

• Adjust the Data value

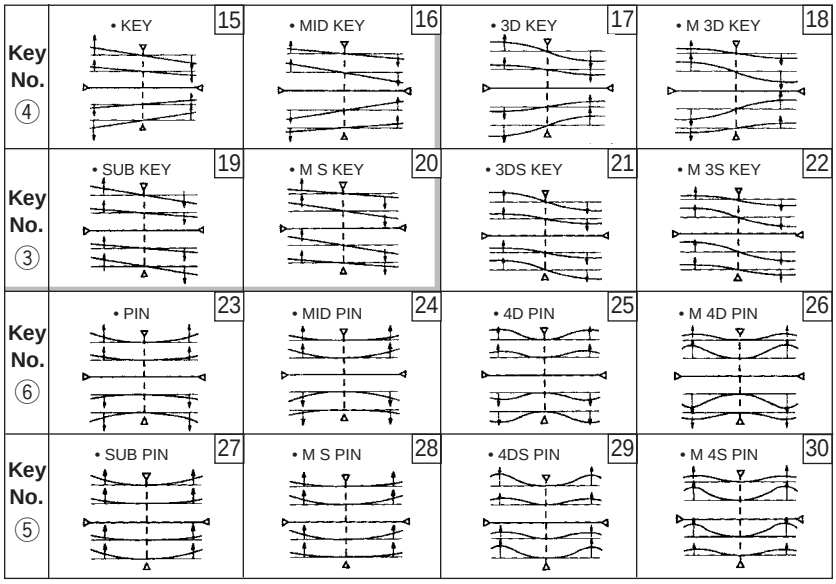


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment of V-STAC is not possible within the range of 010 to –010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

		Adjustment Item	Screen No.	Adjustment Method
Lean Adjustment	1	BV-KEY	15	• Adjust so that the blue horizontal lines at the left and right of the screen do not tilt.
	2	BV-MID KEY *6	16	
	3	BV-SUB KEY	19	
	4	BV-M S KEY *6	20	
Distortion Adjustment	1	BV-3D KEY	17	• Adjust so that the blue horizontal lines at the left and right of the screen overlap with the green horizontal lines, and become straight lines with no distortion.
	2	(BV-M 3D KEY) *6	18	
	3	BV-3DS KEY	21	
	4	(BV-M 3S KEY) *6	22	
	5	BV-PIN	23	
	6	BV-MID PIN *6	24	
	7	BV-4D PIN	25	
	8	(BV-M 4D PIN) *6	26	
	9	BV-SUB PIN	27	
	10	BV-M S PIN *6	28	
	11	BV-4DS PIN	29	
	12	(BV-M 4S PIN) *6	30	**Note:** Do not adjust items 2, 4, 8 and 12.

*6 : Adjust taking note of the blue horizontal lines at 1/4 of the left and right sides of the screen

■ Screen



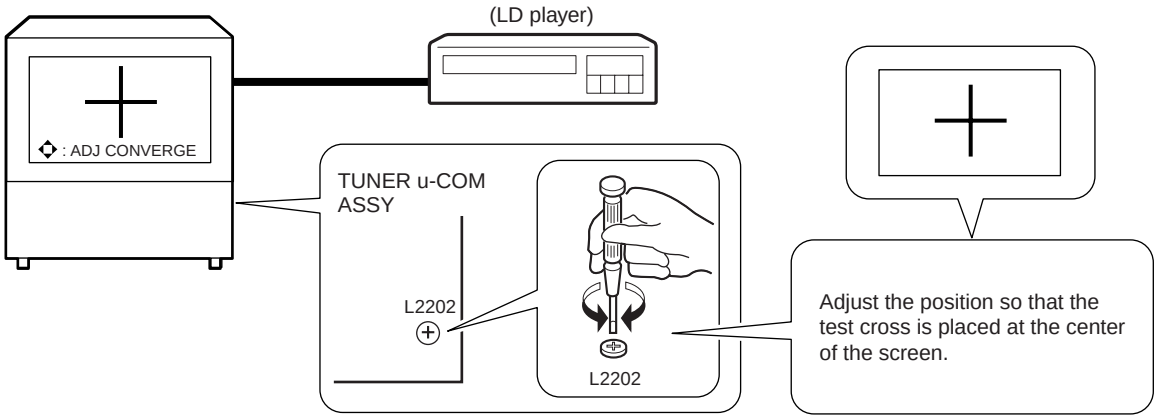
●Screen's changes in the vertical direction when manual convergence adjustment is mode
The changes at the arrow parts shown below are those implemented using the Volume ⊕ key. Changes are opposite to the arrow when the Volume ⊖ key is used.

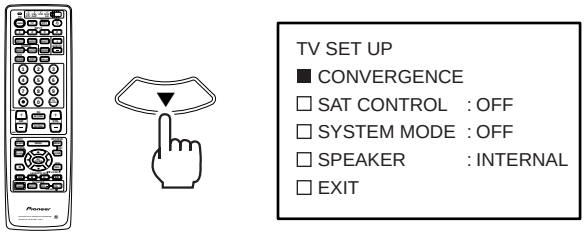
= Fixed position

Fig. 12. Vartical correction (2)

11 Test cross H-center position adjustment

Start

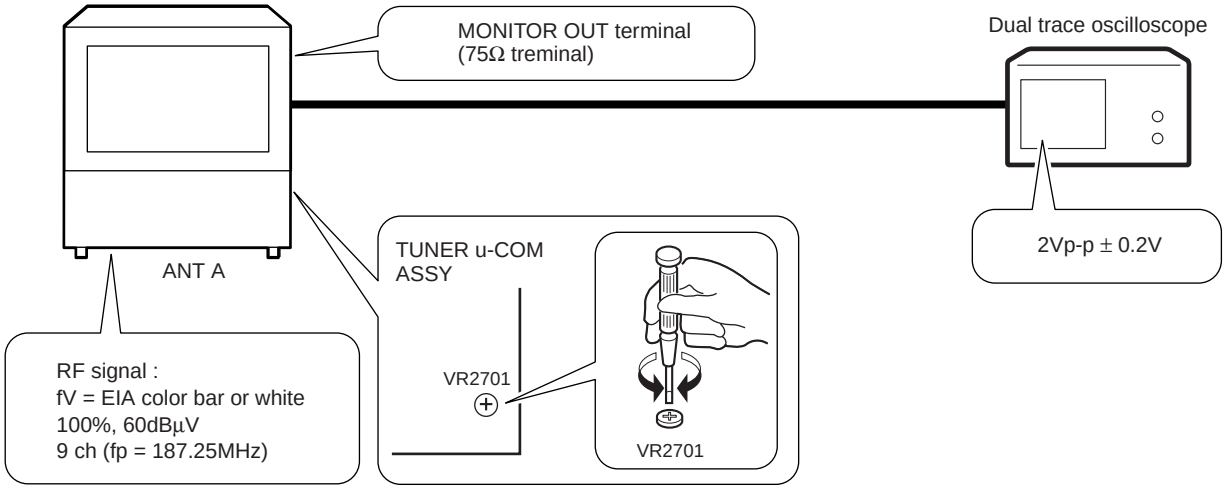




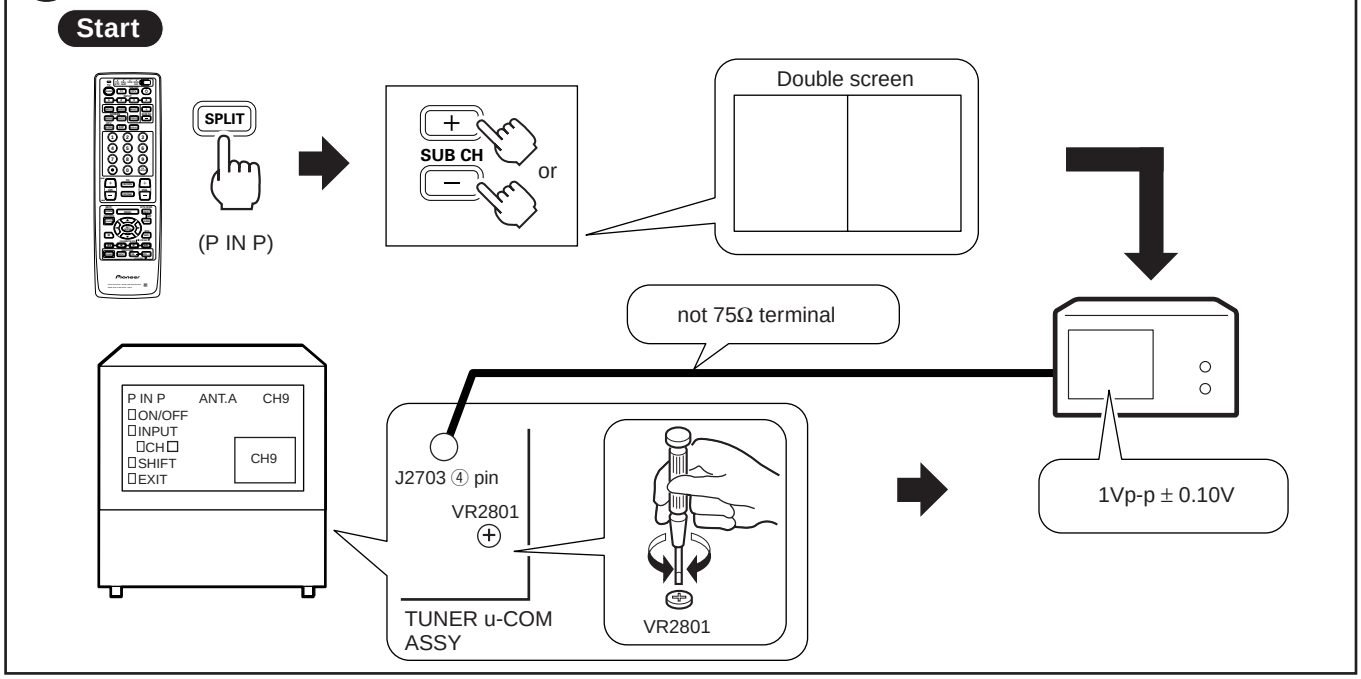
12 Tuner block adjustment

12 -1 Video level adjustment ①

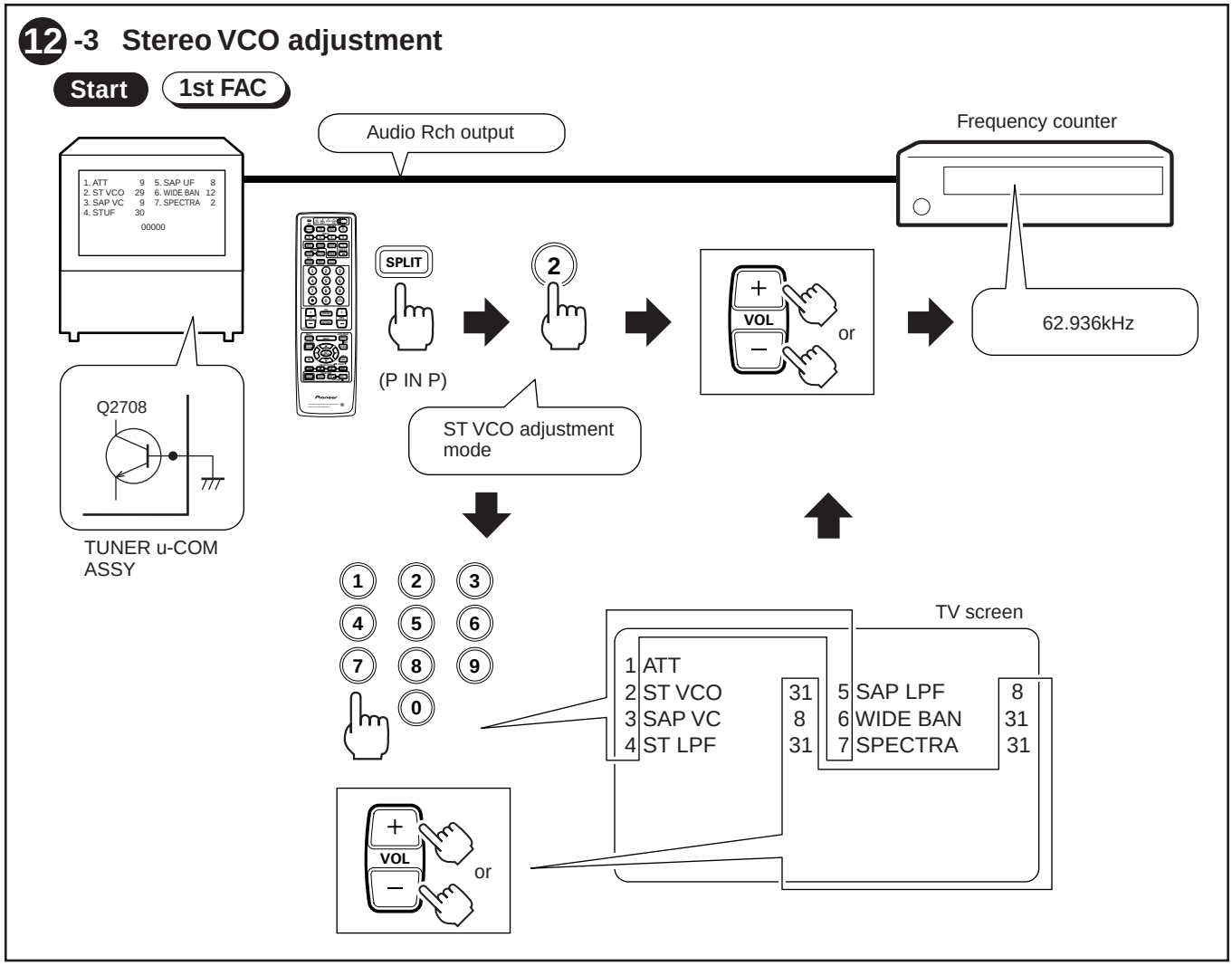
Start



12 -2 Video level adjustment ②

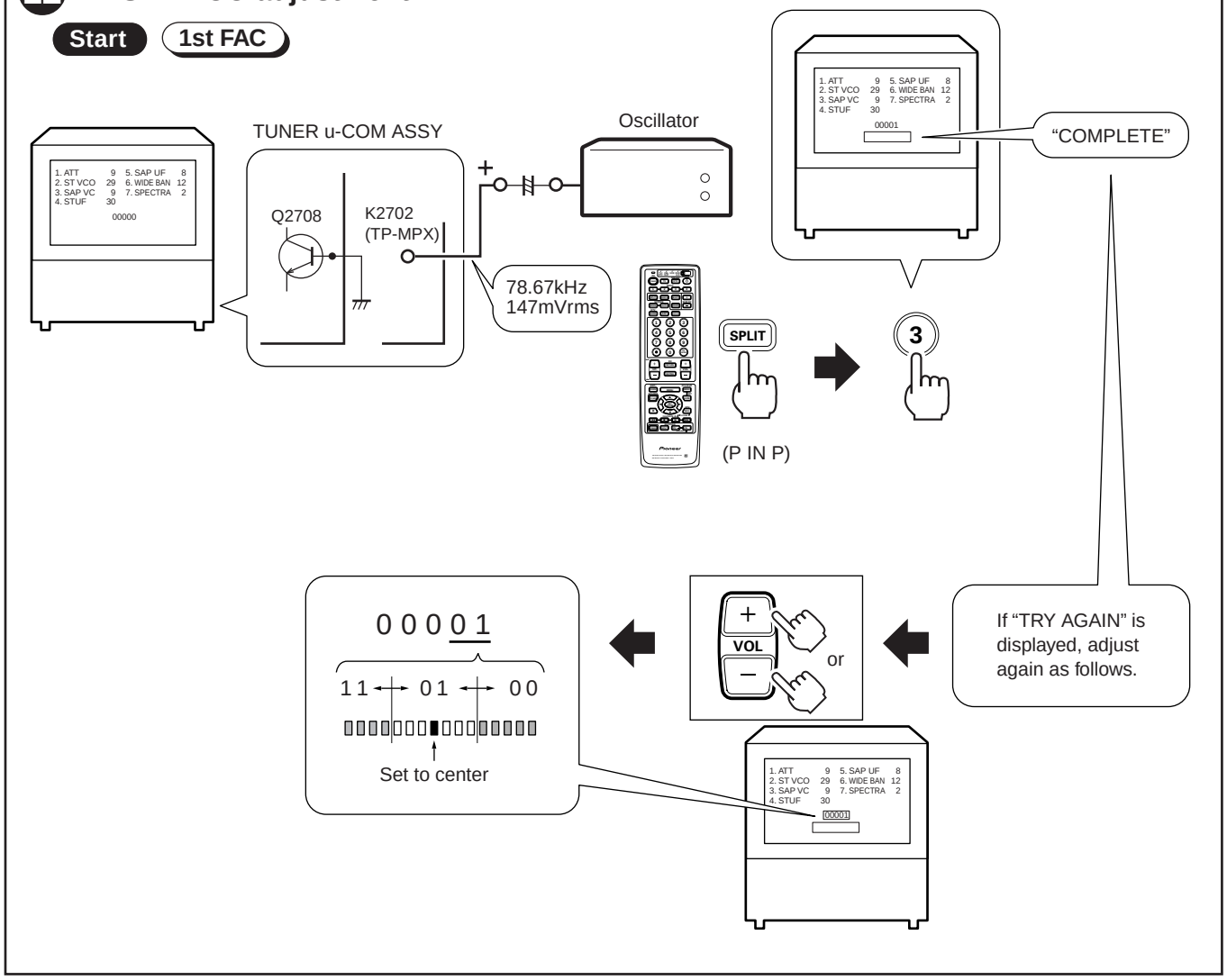


12 -3 Stereo VCO adjustment

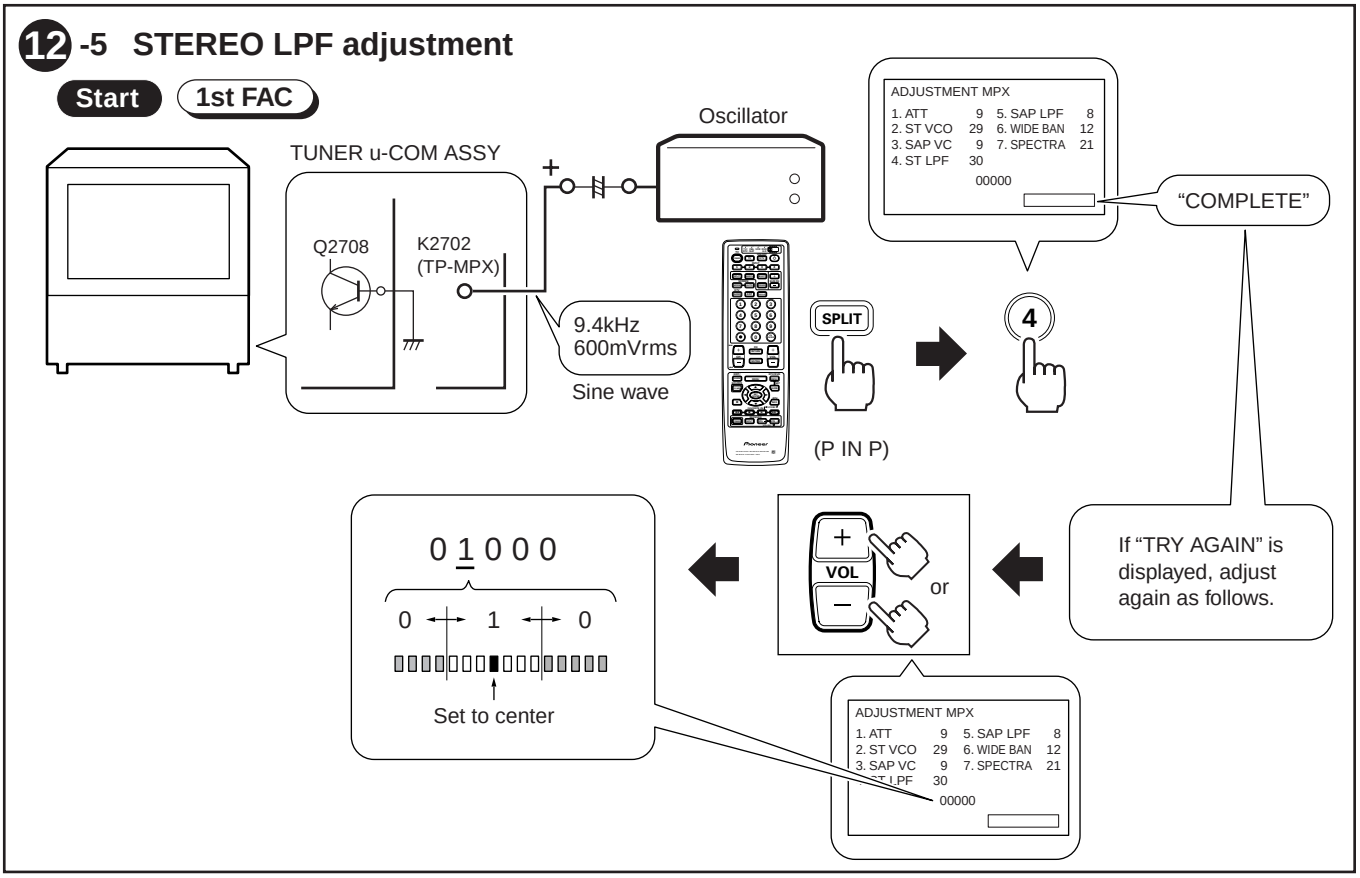


12-4 SAP VCO adjustment

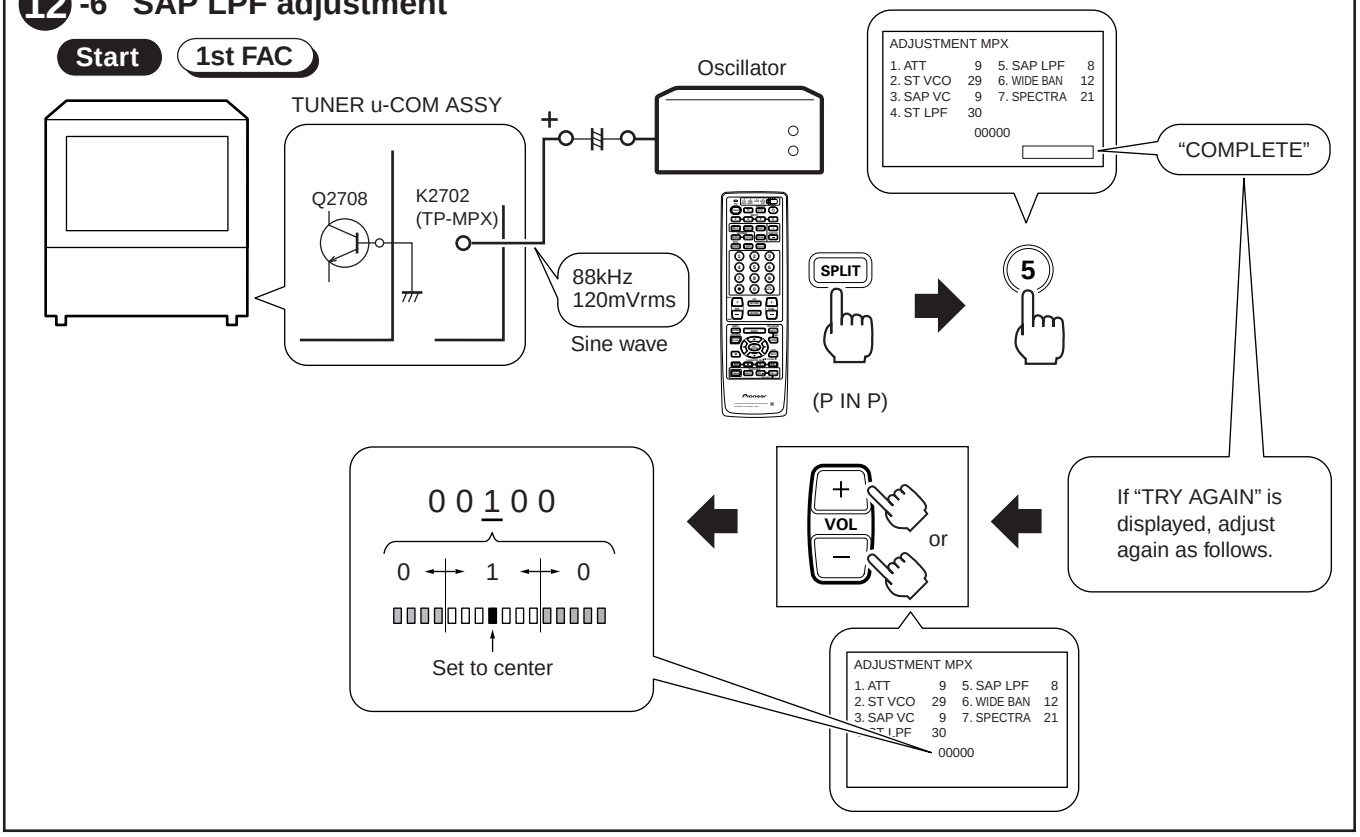
Start → 1st FAC



12-5 STEREO LPF adjustment

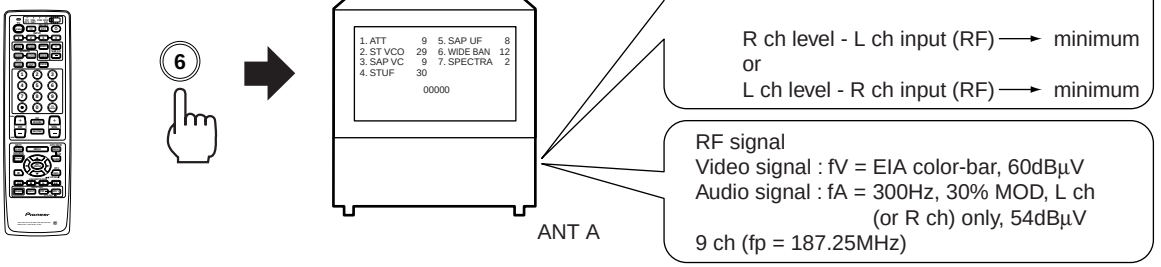


12-6 SAP LPF adjustment



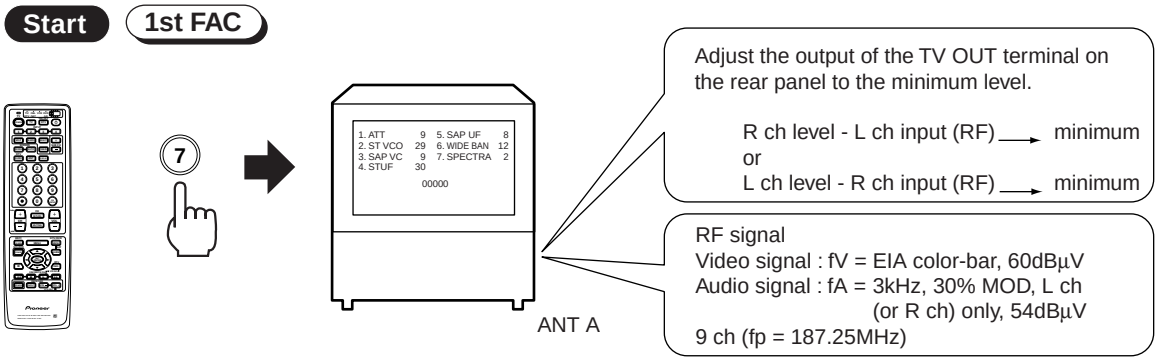
⑫-7 Separation adjustment (WIDE BAND)

Start → 1st FAC

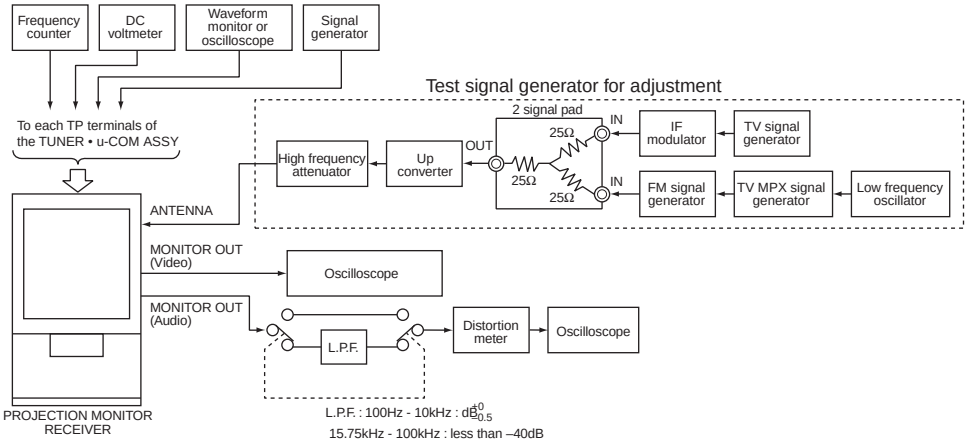


⑫-8 Separation adjustment (SPECTRAL)

Start → 1st FAC



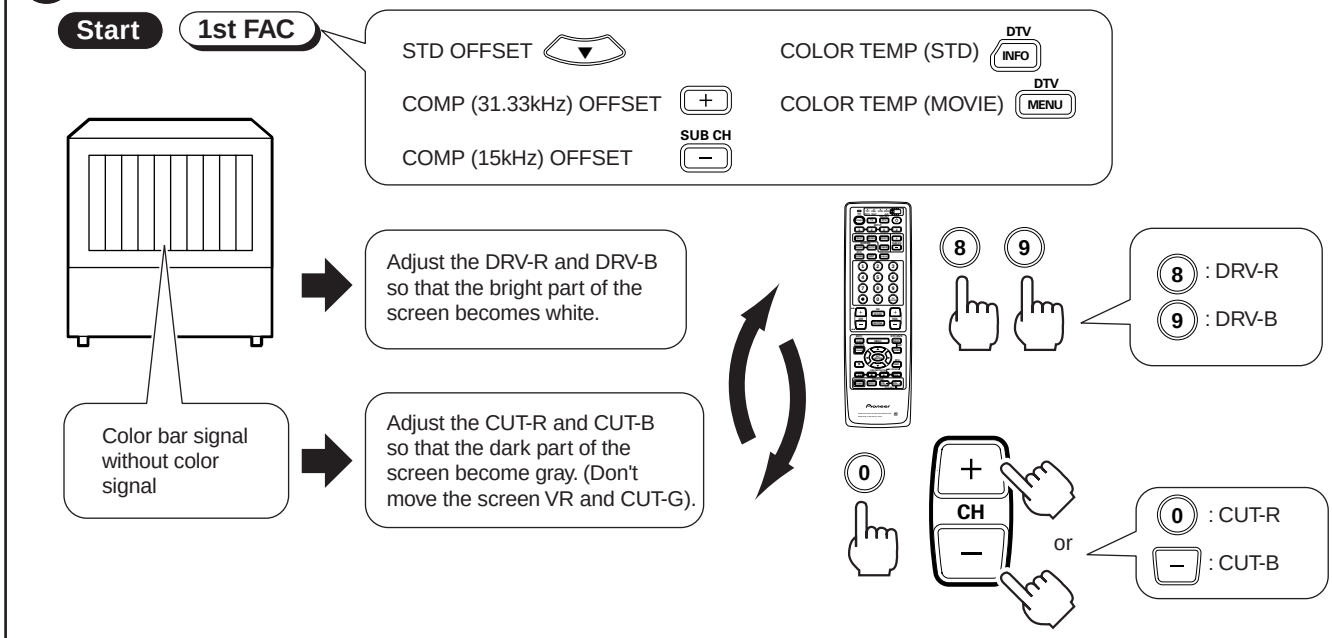
● Connection diagram for adjusting the tuner section:



Note :

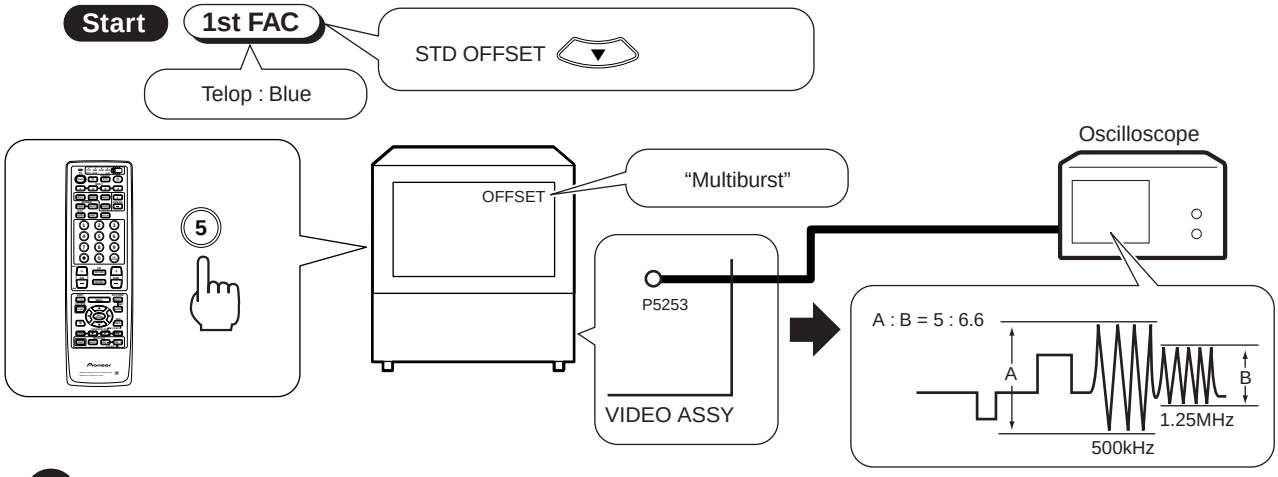
- Repeat step ⑫ -7 and ⑫ -8 till the best separation.
- When performing the separation adjustment, be sure to perform WIDE BAND adjustment first.
- If performing the WIDE BAND adjustment, be sure to perform SPECTRAL adjustment.

13 White balance adjustment

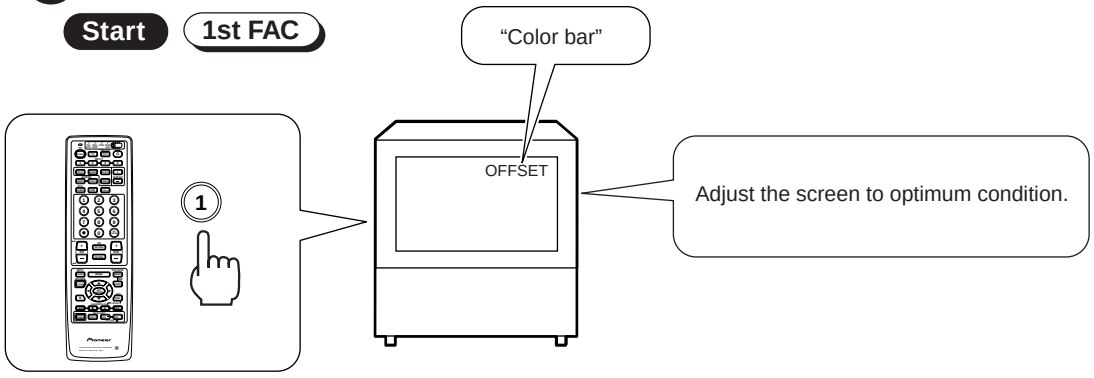


14 PIONEER's standard settings

14 -1 Sharpness adjustment

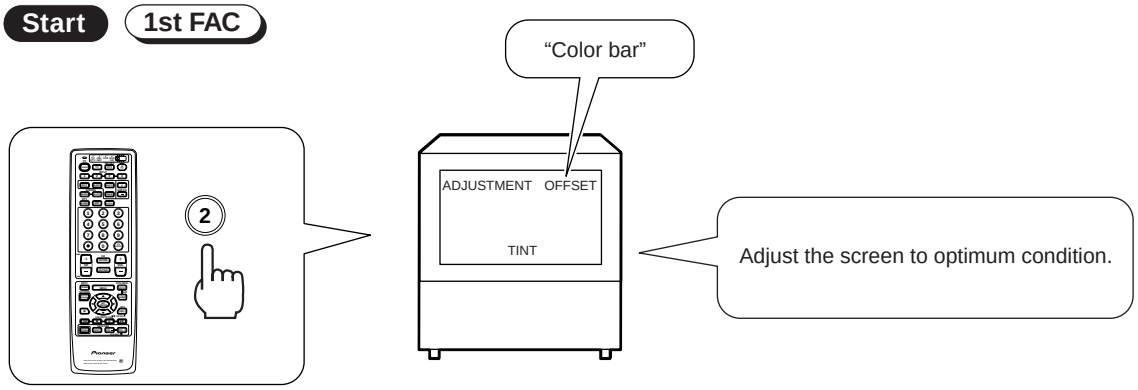


14 -2 Color adjustment



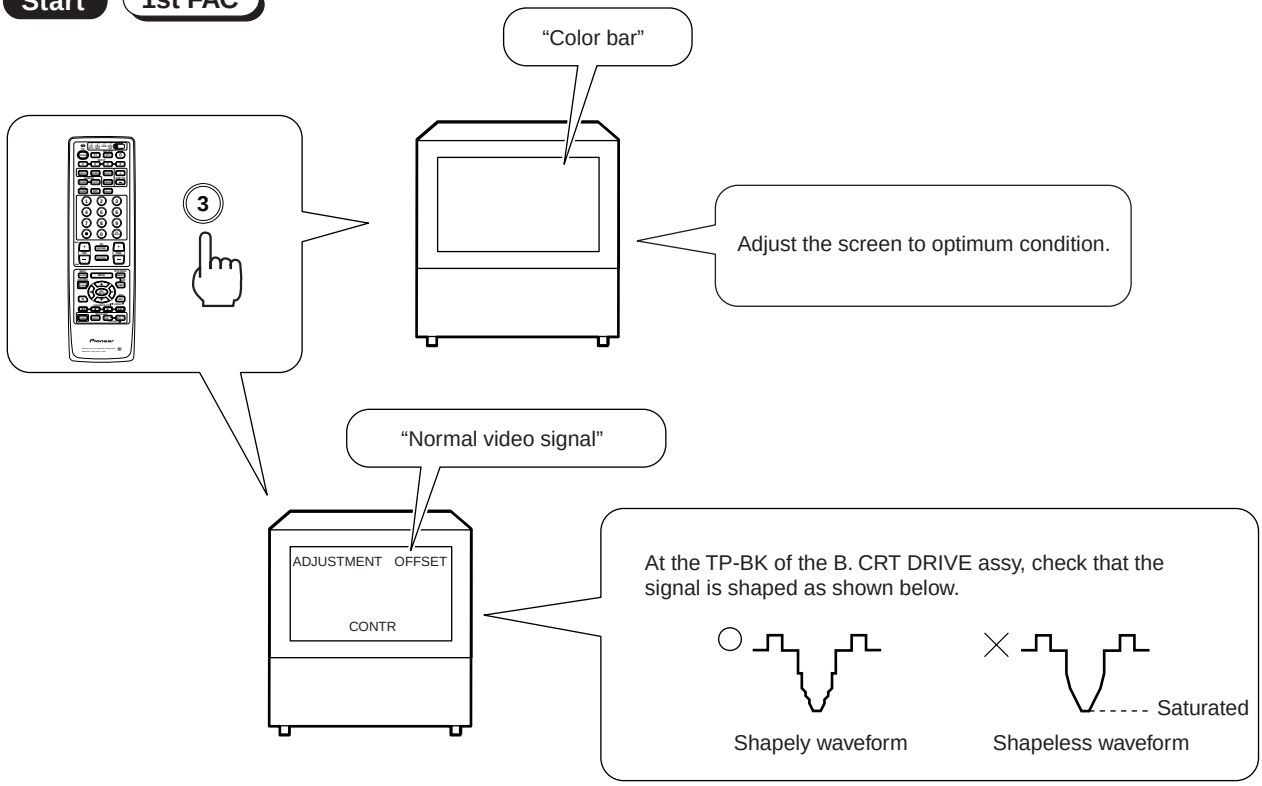
14 -3 Tint adjustment

Start → 1st FAC



14 -4 Contrast adjustment

Start → 1st FAC

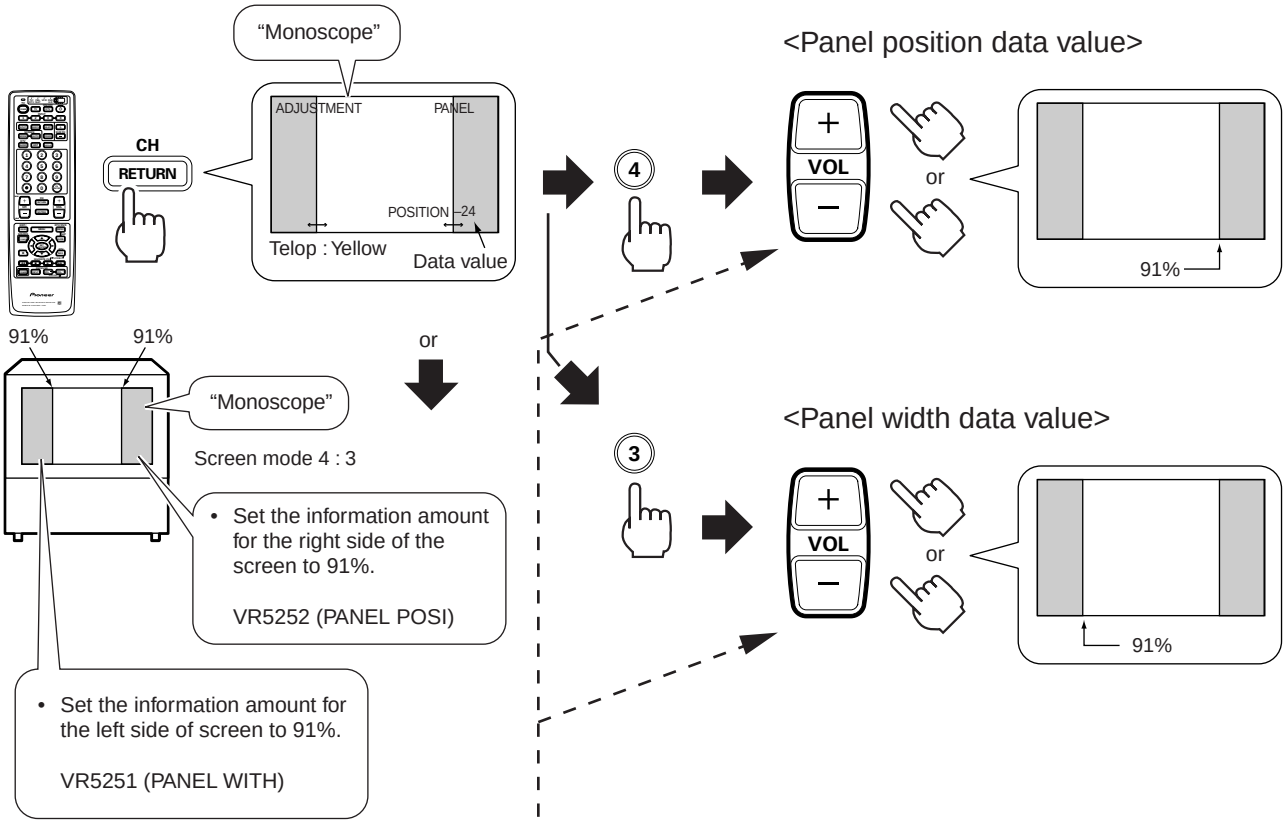


15 Side panel adjustment (Screen size 4 : 3)

15 -1 Panel position adjustment

Start **1st FAC**

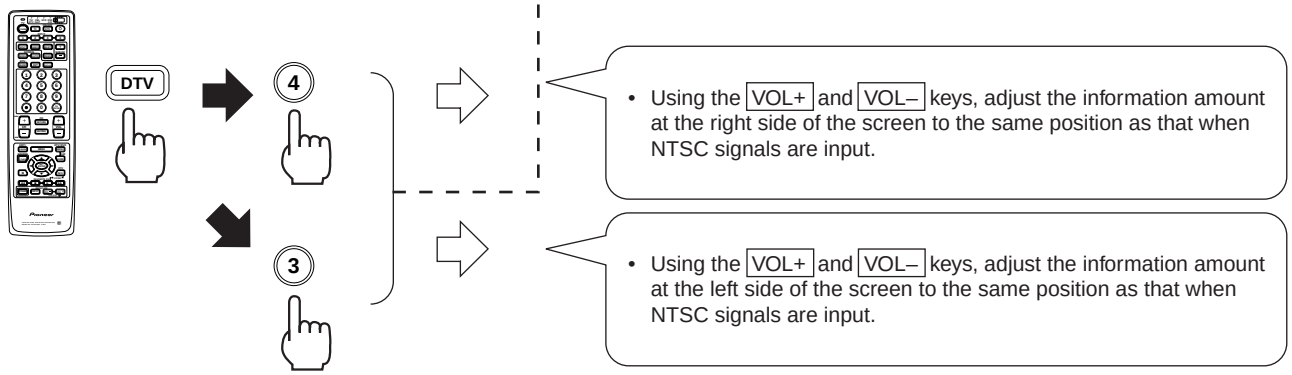
(ADJUSTMENT PANEL MODE)



■ When the optional DTV tuner is mounted

Start **1st FAC**

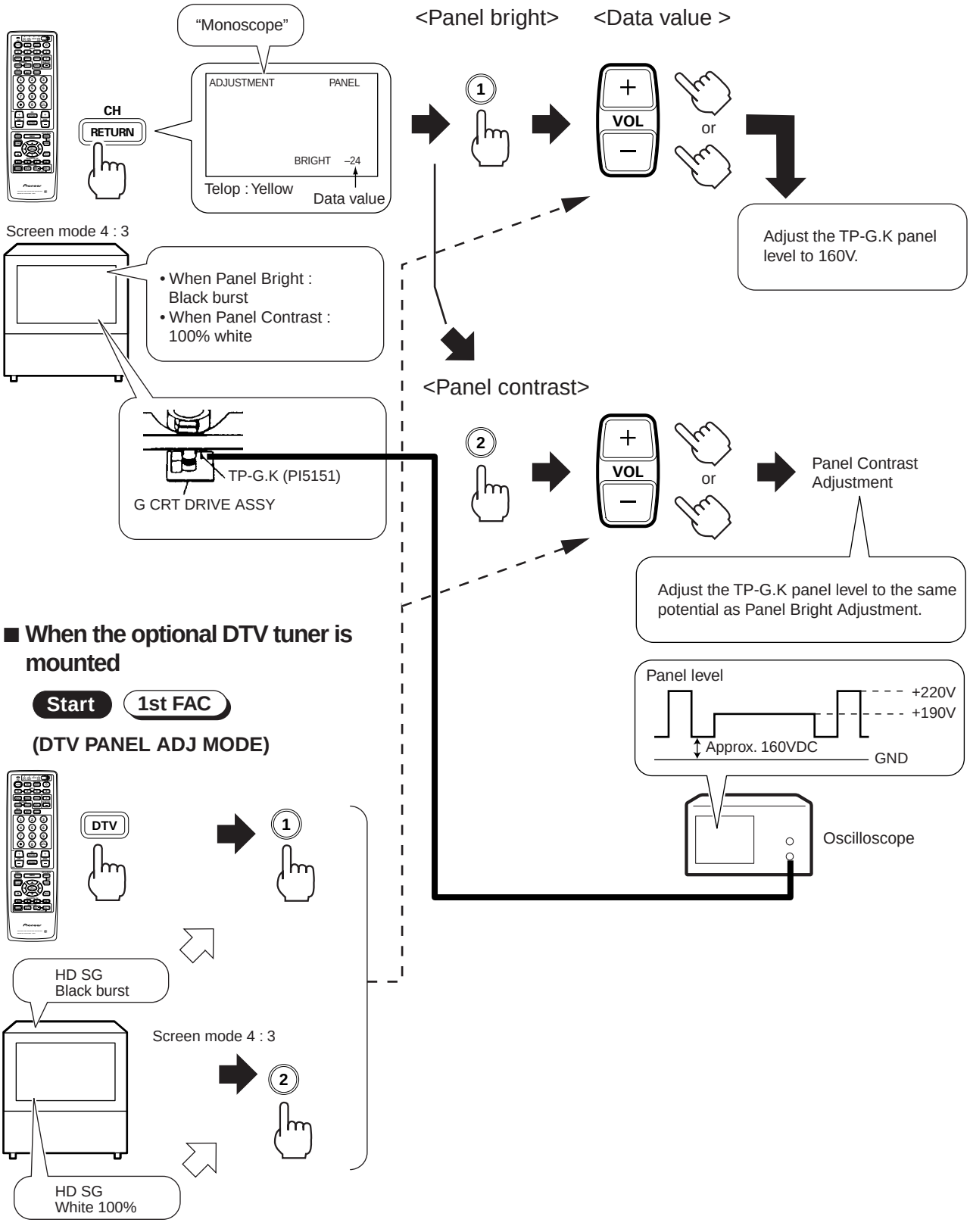
(DTV PANEL ADJ MODE)



15 -2 Adjustment of panel luminance

Start 1st FAC

(ADJUSTMENT PANEL MODE)



■ When the optional DTV tuner is mounted

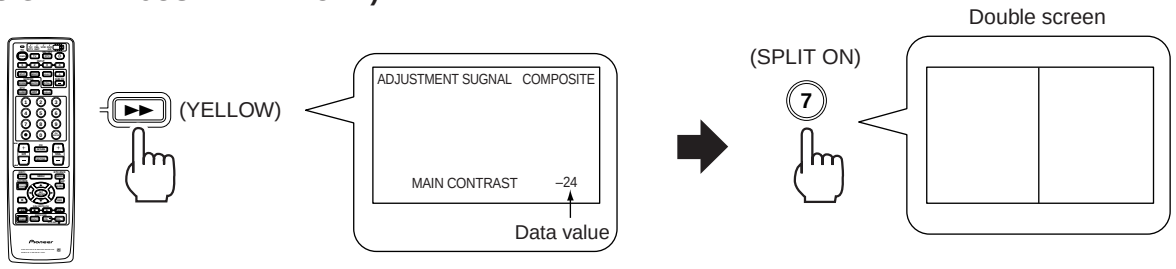
Start 1st FAC

(DTV PANEL ADJ MODE)

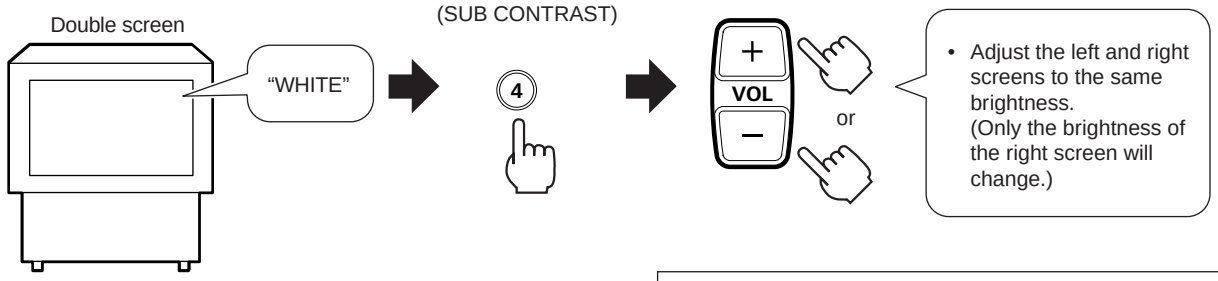
16 SPLIT screen adjustment

Start **1st FAC**

(SIGNAL ADJUSTMENT MODE)

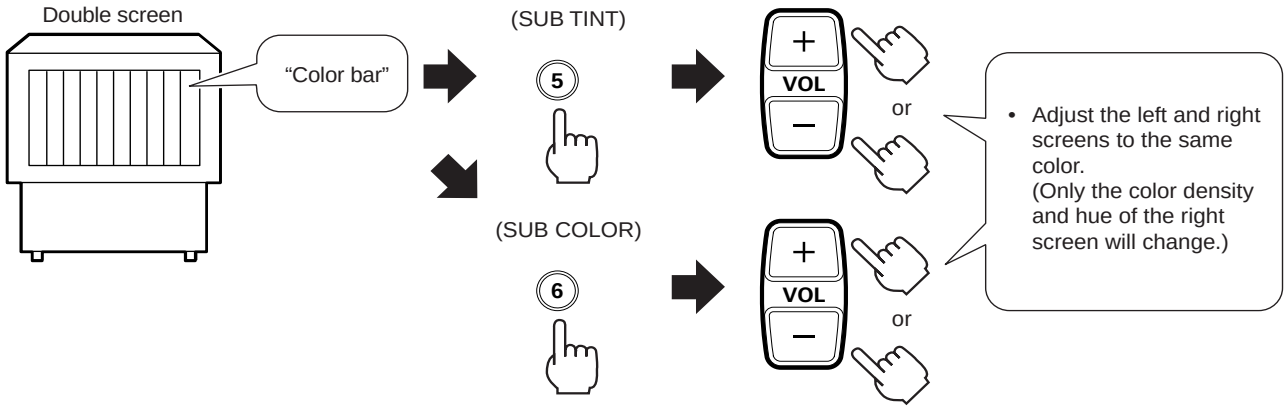


16 -1 Luminance adjustment



Note :
If the SPLIT screen is extremely bright or dark when displaying live images after adjustments, adjust the MAIN CONTRAST (① key ON) to adjust the brightness again.

16 -2 Adjustment of color density and hue



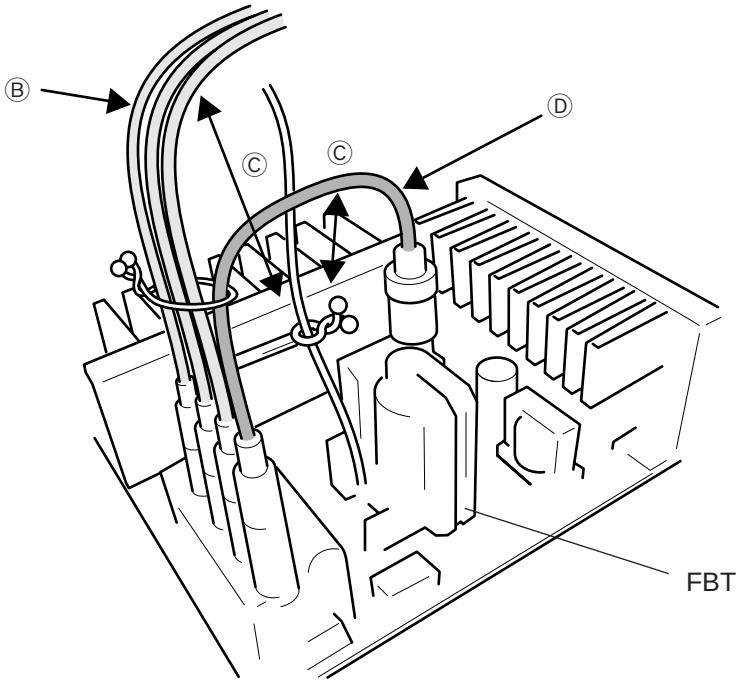
Note :
If the SPLIT screen is extremely light or the hue is improper when displaying live images after adjustments, adjust the MAIN TINT (② key ON) and MAIN COLOR (③ key ON) to adjust the color density and hue again.

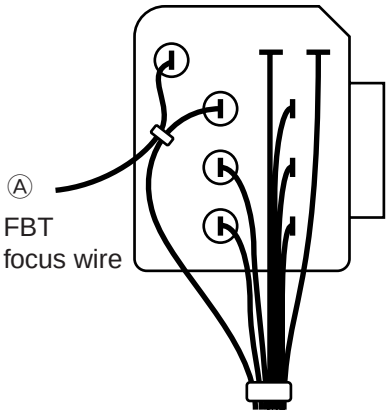
7. GENERAL INFORMATION

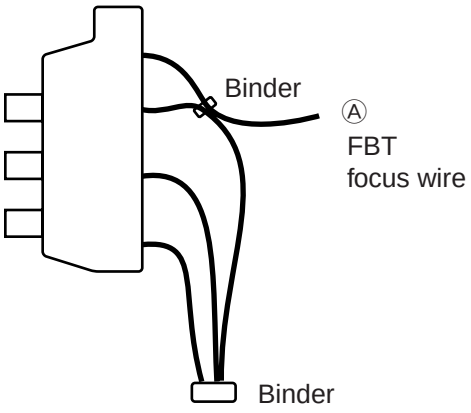
7.1 WIRING DIAGRAM

Reconnect any disconnected lead wires of the Projection monitor receiver.
The important points for connection of the lead wires are as shown below.
You may find that they were connected differently. Be sure reconnect the lead wires as they were.

Note:
Ⓐ: FBT focus wire and other parts should be at least 15mm away from any other parts.
Ⓑ: Loop with a radius of 30mm or omre.
Ⓒ: The anode cable and other parts should be at least 15mm away from any other parts.
Ⓓ: Loop with a radius of 50mm or more.







7.2 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

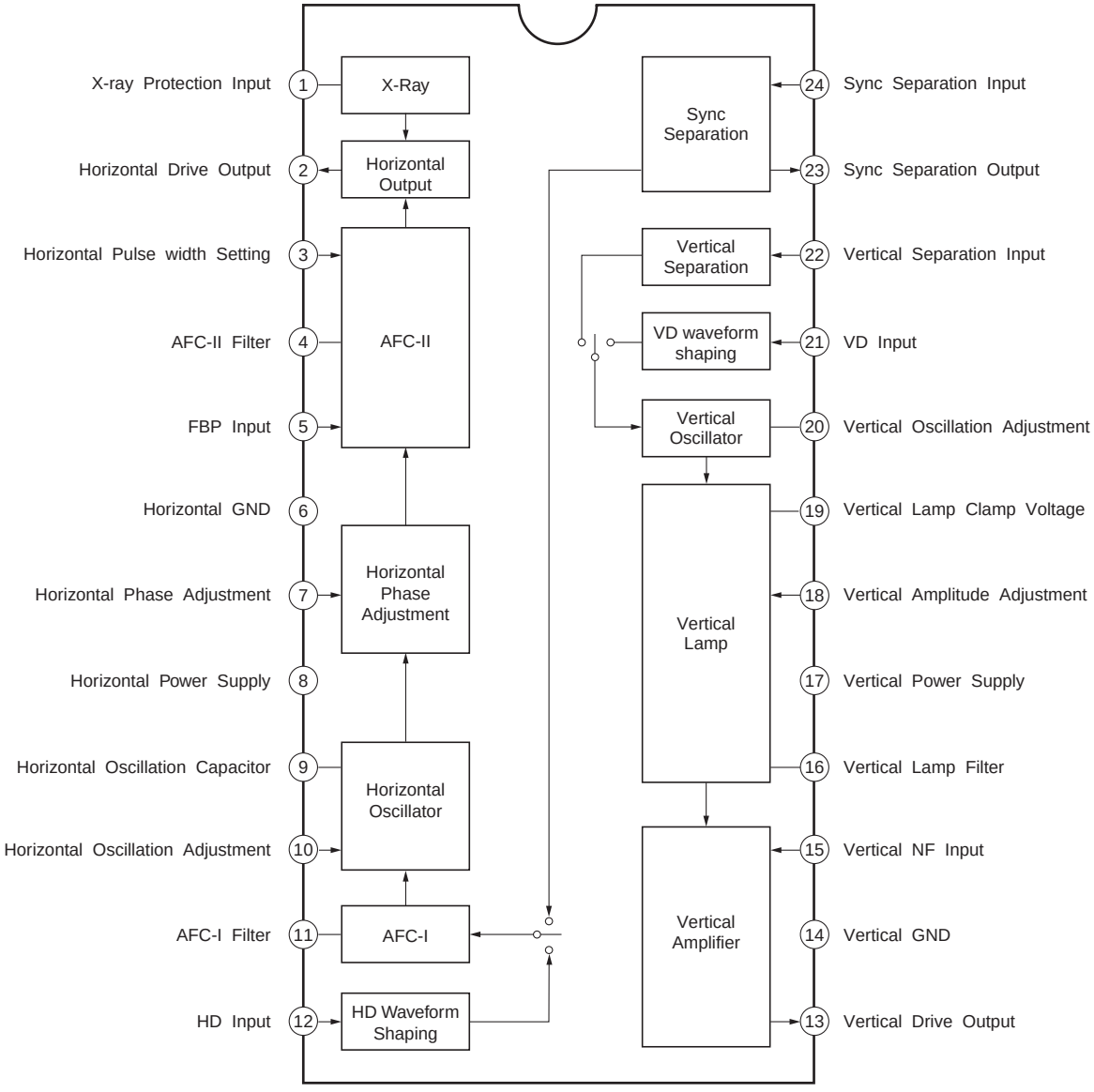
● List of IC

TA8638N	CA0007AD	CXA1315P	STK4412	NJM2187L
PD5462A9	PD5463B9	PD5497B9	PD0264AM	TA1276AN
AN5344FBP	AN5395FBP	SAA7165WP	TDA8755T	SAA4952WP
TMS4C2973-26	CD74HCT4046AM	SAA4990H	PE6001A9	PQ05RD1B
uPD64081BGF-3BA	TA1270AF	NJM2233BM	PQ09RD1B	CXA2119M
MM1031XM	TC90A45F	MB40C568HPFV	MA07132	HY514264BJC-50A
TLC29321PW	PD5499A	24LC08B(I)SN		

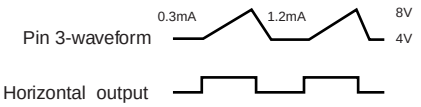
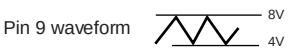
■ TA8638N (DEFLECTION ASSY : IC301)

DEFLECTION IC

● Block Diagram



● Pin Function

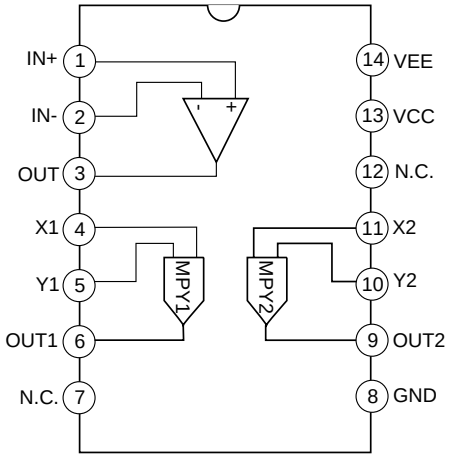
Pin No.	Pin Name	I/O	Function
1	X-ray protection input	I	Pin for preventing radiation of X-ray from CRT. When this pin is set above 1.3V (standard), the horizontal output will stop until H.VCC becomes a low level.
2	Horizontal drive output	O	Horizontal output pin.
3	Horizontal pulse width setting	I	Pin for adding a capacitor for setting horizontal output pulse duty. 
4	AFC-II filter	—	Pin for adding capacitor for AFC-II filter.
5	FBP input	I	FBP input pin.
6	Horizontal GND	—	Horizontal circuit GND
7	Horizontal phase adjustment	I	Horizontal phase adjustment pin. The image horizontal position can be adjusted according to the voltage of this pin.
8	Horizontal VCC	—	Horizontal circuit VCC=12V (Standard)
9	Horizontal oscillation capacitor	—	Pin for adding the horizontal oscillation capacitor. Oscillation circuit based on rated current discharge. 
10	Horizontal oscillation adjustment	I	Pin for adjusting the horizontal oscillation frequency. Determines the current to Pin 9.
11	AFC-I filter	—	Pin for adding the capacitor to the AFC-I filter.
12	HD input	I	HD signal input pin. The HD signal is selected as the sync signal by setting the voltage of Pin 22 to low level (<0.7V).
13	Vertical drive output	O	Vertical output pin.
14	Vertical GND	—	Vertical circuit GND.
15	Vertical NF input	I	Vertical negative feed back input pin.
16	Vertical lamp filter	—	Pin for adding a capacitor for generating the vertical lamp waveform. Performs waveform-shaping by the discharged power of the capacitor.
17	Vertical power supply	—	Vertical circuit VCC=12V (Standard)
18	Vertical amplitude width adjustment	I	Pin for adding a capacitor for generating the vertical lamp waveform.
19	Vertical lamp clamp voltage	—	Pin for determining the upper limit voltage of vertical sawtooth wave.
20	Vertical oscillation adjustment	—	Pin for adding the capacitor resistance for vertical oscillation.
21	VD input	I	VD signal input pin. The VD signal is selected as a sync signal by setting the voltage of Pin 22 to low level (<0.7V).
22	Vertical separation input	I	Vertical sync signal input pin. By setting this pin to low level (<0.7V), the HD and VD signals are selected as a sync signal.

Pin No.	Pin Name	I/O	Function
23	Sync separation output	O	Horizontal sync separation output pin. Separates and outputs the sync signal of the composite signal input to Pin 24.
24	Sync separation input	I	Horizontal sync separation input pin.

■ CA0007AD (AMP ASSY: IC907)

DUAL ANALOG MULTIPLIER IC

● **Block Diagram**



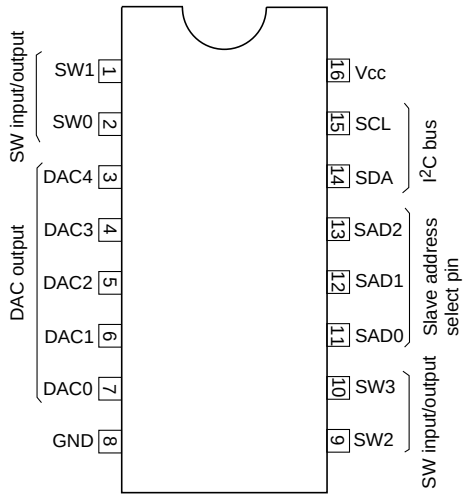
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	IN+	I	Non-inverting input (OP-AMP)
2	IN–	I	Inverting input (OP-AMP)
3	OUT	O	Output (OP-AMP)
4	X1	I	X input (MPY-1)
5	Y1	I	Y input (MPY-1)
6	OUT1	O	Output (MPY-1)
7	N.C.	–	Not connected
8	GND	–	Ground
9	OUT2	O	Output (MPY-2)
10	Y2	I	Y input (MPY-2)
11	X2	I	X input (MPY-2)
12	N.C.	–	Not connected
13	VCC	–	Power
14	VEE	–	Power

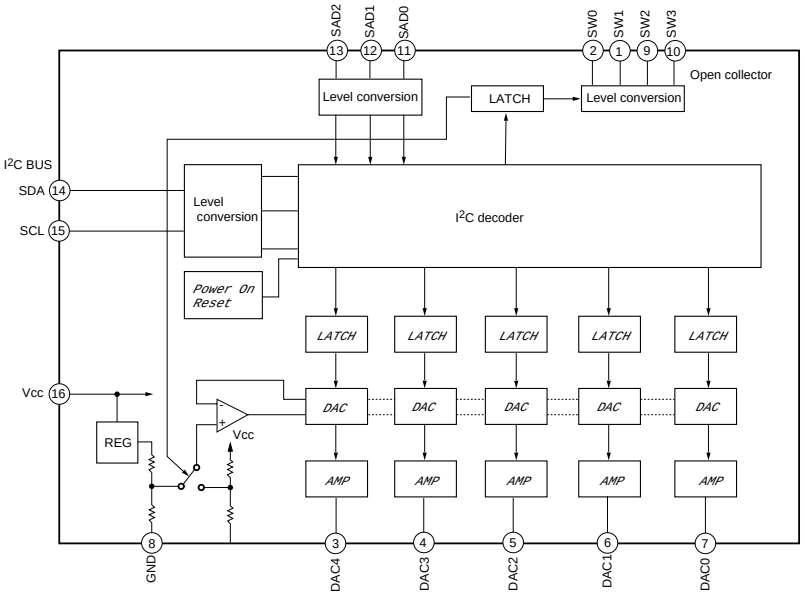
■ CXA1315P (AMP ASSY: IC1171)

8 bit D/A CONVERTER

● **Pin Assignment**



● **Block Diagram**



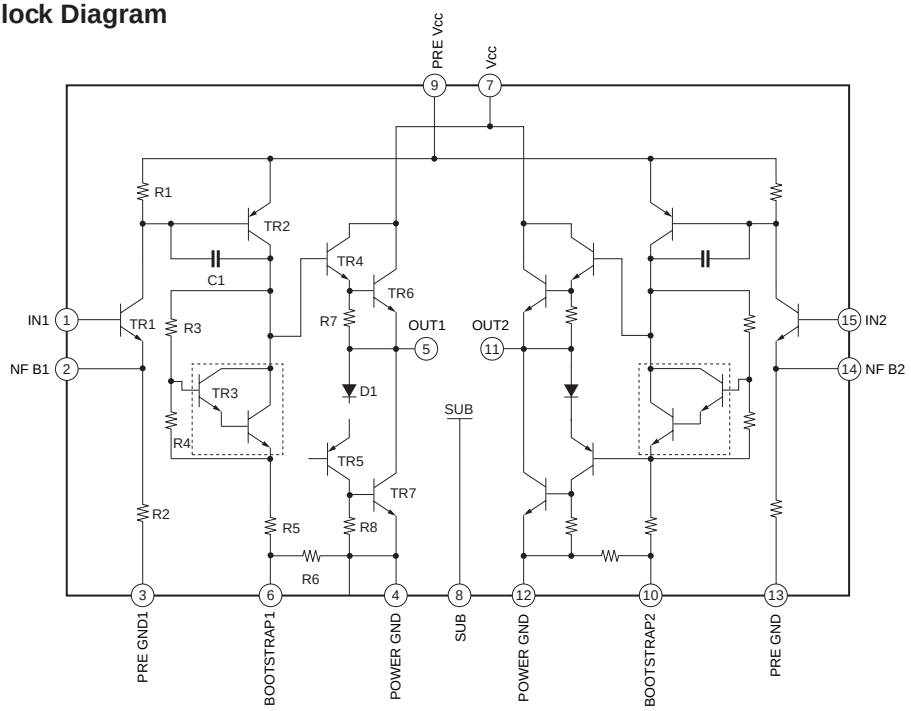
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	SW1	I/O	Input/output pin of the general I/O port. VILmax: 1.5V VIHmin: 3V VOLmax: 0.4V
2	SW0	I/O	
3	DAC4	O	D/A converter output pin.
4	DAC3	O	
5	DAC2	O	
6	DAC1	O	
7	DAC0	O	
8	GND	—	GND pin.
9	SW2	I/O	Input/output pin of the general I/O port. VILmax: 1.5V VIHmin: 3V VOLmax: 0.4V
10	SW3	I/O	
11	SAD0	I	Input pin of the slave address. Inputs by positive logic. VILmax: 1.5V VIHmin: 3V
12	SAD1	I	
13	SAD2	I	
14	SDA	I/O	I^2C BUS SDA input/output pin.
15	SCL	I	I^2C bus SCL input pin.
16	VCC	—	Power supply pin.

■ STK4412 (AMP ASSY: IC1202)

POWER Amp

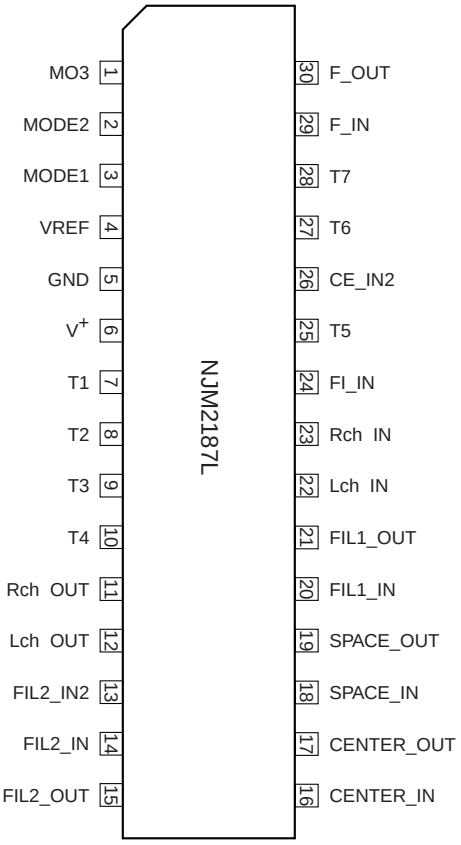
● **Block Diagram**



■ NJM2187L (AMP ASSY: IC1204)

SURROUND IC

● Pin Assignment



● Pin Function

Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
1	MO3	I	V+ IN	16	CENTER_IN	I	Center gain adjustment
2	MODE2	I	Mode selection switch	17	CENTER_OUT	O	Center gain adjustment
3	MODE1	I	Mode selection switch	18	SPACE_IN	I	Space gain adjustment
4	VREF	—	Reference voltage V+/2	19	SPACE_OUT	O	Space gain adjustment
5	GND	—	Ground	20	FIL1_IN	I	Perspective Network 1 input
6	V+	—	Power supply 4.5V to 13V	21	FIL1_OUT	O	Perspective Network 1 output
7	T1	O	Test pin	22	Lch IN	I	Left channel input
8	T2	O	Test pin	23	Rch IN	I	Right channel input
9	T3	O	Test pin	24	FI IN	I	Perspective Network input
10	T4	O	Test pin	25	T5	I	Test pin
11	Rch OUT	O	Right channel output	26	CE IN	I	Center input
12	Lch OUT	O	Left channel output	27	T6	I	Test pin
13	FIL2_IN2	I	Perspective Network 2 input	28	T7	O	Test pin
14	FIL2_IN	I	Perspective Network 2 input	29	F_IN	I	Perspective Network 3 input
15	FIL2_OUT	I	Perspective Network 2 output	30	F_OUT	O	Perspective Network 3 output

■ PD5462B9 (TUNER u-COM: IC2201)

MAIN µ-COM

● Pin Function

Pin No.	Pin Name	I/O	Function	ACT
1	OPTION	I	For software destination switching	P:L, S:H
2	TEMP.S	I	Unused	–
3	AFT1	I	AFT analog voltage input to tuner 1	–
4	AFT2	I	AFT analog voltage input to tuner 2	–
5	KEY	I	Analog DC voltage input for determination of KEY input	–
6	DPO	I	DPO analog voltage input	–
7	YOBI	I	Unused	–
8	SRDY	I	SRDY signal for communication with sharp microprocessor	
9	MCLK	O	MCLK signal for communication with sharp microprocessor	–
10	MDATA	O	MDATA signal for communication with sharp microprocessor	–
11	SDATA	I	SDATA signal for communication with sharp microprocessor	–
12	MREQ	O	MREQ signal for communication with sharp microprocessor	
13	ANT SW2	O	Output for switching ANT SW for tuner 2	ANT.A: H, ANT.B: L
14	H SYNC1	TIM input	Tuner 1 reception horizontal sync count input. Same contents as H.SYNC2.	Negative polarity
15	H SYNC2	TIM input	Horizontal sync count input for tuner 2 reception. Determines that there is a broadcast station if the state in which the number of H. SYNC is 12 to 18 continues for 8 times, and determines that there is no broadcast station for other states continue for 6 times.	Negative polarity
16	V BLK2	INT input	For data transmission timing	Positive polarity
17	NC	I	Unused	–
18	NC	I	Unused	–
19	MTS SW	O	Tuner 1, 2 audio input switching control signal	Tuner1: L, Tuner2: H
20	(D)SCL	O	I2C BUS for communication with DTV tuner	–
21	(D)SDA	I/O	I2C BUS for communication with DTV tuner	–
22	(D)BUSY	I	BUSY signal for communication with DTV tuner	
23	(D)RESET	O	RESET signal for communication with DTV tuner	
24	(D)INT	INT input	INT signal for communication with DTV tuner	
25	REM	INT input	SR remote control signal input	–
26	CNVSS	–	Connected to VSS	–
27	RESET	I	RESET input	RESET: L
28	TIMER LED	O	LED control signal for reserved recording	Lit: H
29	DTV LED	O	LED control signal for DTV reception	Lit: H
30	XIN	I	Main clock generation circuit input pin	–
31	XOUT	O	Main clock generation circuit output pin	–
32	VSS	–	Prints 0V	–
33	LED ON/OFF	O	Main PW RED LED control signal	Lit: H
34	P.D.	I	Unused	–
35	RELAY1	O	TV GUIDE +, TUNER 2 power supply relay control	ON: L, OFF: H
36	RELAY2	O	General secondary side circuit power supply relay control	ON: L, OFF: H
37	AC CLK	I	AC.CLK detection input for detection of AC power supply OFF	–
38	FAN DRV	I	Unused	–
39	A.MUTE1	O	Audio mute output	Mute: H
40	A.MUTE2	I	Unused	–

Pin No.	Pin Name	I/O	Function	ACT
41	C.MUTE	O	Converter mute output. When AC is supplied:L, Discharge:H.	MUTE ON: L, OFF: H
42	C.ENB	O	ENB output for PM0011 AS (convergence DAC IC) control.	Communication permission: L
43	CLK	O	PM0011AS (convergence DAC IC, IC1403, IC1408-IC1412), HG62G010R29FB (auto zoom IC, IC4005) CLK output for control	–
44	DATA	I/O	Same as above, DATE output	–
45	E2P RST	O	RESET output for EEPROM	RESET: H
46	(E)SCL	O	SCL output for EEPROM	–
47	(E)SDA	I/O	SDA input/output for EEPROM	–
48	I2CSW	O	Control output for separating the (E)SCL, (E)SDA I2C BUS from the auto converter connector. Connected only in the auto converter mode.	SW ON: H
49	SCL1	O	I2C BUS for AXF1084 (Tuner 1 front end), CXA1734S (US sound multi-decoder IC, IC2701), PD5497B9 (CCD microprocessor, IC2203), I2C BUS for control	–
50	SDA1	I/O	Same as above	–
51	SCL2	O	uPC1853CT (surround processor, IC1201) TA1276N (video jungle IC, IC5251) CXA1315P (audio DAC, IC1171), CXP1315P (DAC for base) CXA1315M (6-layer DAC, IC6403), I2C BUS for control	–
52	SDA2	I/O	Same as above	–
53	(S)CLK	O	CLK output for sub-microprocessor (PD5463B9, IC2202) control	–
54	(S)DATA	I/O	DATA output for sub-microprocessor (PD5463B9) control	–
55	(S)ENB	O	ENB output for sub-microprocessor (PD5463B9) control	Communication permission: L
56	(S)BUSY	I	BUSY output for sub-microprocessor (PD5463B9)	BUSY: H
57	CC SEL	O	CCD switching control signal	Main (CC for left screen): L
58	SCL5	O	AXF1084 (tuner 2 front end), I2C BUS for control	–
59	SDA5	I/O	AXF1084 (tuner 2 front end), I2C BUS for control	–
60	NC	I	Unused	–
61	SMUTE	O	Sub-screen mute output	–
62	MMUTE	O	Main-screen mute output	–
63	V MUTE	O	Video mute output (Main-screen and sub-screen muted together)	Mute: H
64	P.ENB	I	Unused	–
65	NC	I	Unused	–
66	G.ENB	O	ENB output for HG62G010R29FB (auto zoom IC, IC4005) control	Permission: L
67	G.RST	O	RESET output for HG62G010R29FB (auto zoom IC) control	RESET: H
68	3D RST	O	Signal for resetting uPD64081BGF-3BA (3D Y/C SEP IC, IC7002)	RESET: L
69	V CHIP MUTE	O	V chip muting of main-screen	Mute: H
70	TV MUTE	O	For muting TV OUT signal during station selection	Mute: H
71	MON MUTE	O	Signal output for monitor out signal muting (When system is connected, when function is switched, when ON/OFF)	Mute: H
72	V/F MUTE	O	Muting output for switching VARIABLE and FIX of audio output	Mute: H
73	VCC	–	Supplies power +5V	–
74	ADVREF	–	Supplies power +5V for AD	–
75	AVSS	–	Supplies 0V	–
76	ANT SW1	O	Output for switching ANT SW for TUNER1	ANT.A: H, ANT.B: L
77	N.C.	–	Unused	–
78	N.C.	–	Unused	–
79	N.C.	–	Unused	–
80	N.C.	–	Unused	–

■ PD5463B9 (TUNER u-COM: IC2202)

SUB µ-COM

● Pin Function

Pin No.	Pin Name	I/O	Function	ACT
1	DH BLK	I	CCD display sync signal double speed HBLK input	Positive polarity
2	V BLK2	I	CCD display sync signal VBLK input	Positive polarity
3	OPTION	I	Voltage input for switching software destination	P: L, S: H
4	VS	I	Vertical sync input for detecting fH of component signal	Positive polarity
5	HS	I	Horizontal sync input for detecting fH of component signal	Positive polarity
6	NC	–	Unused	–
7	P.RST	O	RESET output for RESET control of progressive BLOCK (PE6001A9, PST9146N), TC9078F (aspect conversion IC)	RESET: H
8	(S)BUSY	O	BUSY line for communication with main microprocessor	H: BUSY
9	(S)ENB	I	ENB line for communication with main microprocessor	Communication permission: L
10	(S)DATA	I/O	DATA line for communication with main microprocessor	–
11	V SIZE ADJ	O	PWM output for vertical size adjustment	Size large: +, Size small: –
12	H SIZE ADJ	O	PWM output for horizontal size adjustment	Size large: +, Size small: –
13	H PHA ADJ	O	PWM output for horizontal position adjustment	Move to right: –, Move to left: +
14	OSD ENB	O	ENB output for PD0264A(OSD IC) control	Communication permission: L
15	(S)CLK	I	CLK line input for communication with main microprocessor	–
16	OSD DATA	O	DATA output for controlling PD0264 A (OSD IC)	–
17	OSD CLK	O	CLK output for controlling PD0264 A (OSD IC)	–
18	AVCC	–	Analog power supply. Connected to +5V.	–
19	HLF	–	Connected to external part for CCD timing signal generation circuit	–
20	RVCO	–	Connected to external part for CCD timing signal generation circuit	–
21	VHOLD	–	Connected to external part for CCD reference voltage generation circuit	–
22	CC Y1	I	Input of video signal for main screen CCD and V CHIP detection	Positive polarity
23	CNVSS	–	Connected to VSS.	–
24	XIN	–	Input pin of main clock generation circuit	–
25	XOUT	–	Output pin of main clock generation circuit	–
26	VSS	–	Supplies to 0V	–
27	VCC	–	Supplies +5V power supply	–
28	OSC1	I	Clock input for display	–
29	OSC2	I/O	Clock output for display	–
30	RESET	I	RESET input	Reset: L
31	V O/X1	I	Input for main signal input detection	Signal present: L
32	V O/X2	I	Input for sub signal input detection	Signal present: L
33	CENT O/X	I	Input for center input detection	Signal present: H
34	FRESH TONE	O	Signal output for switching skin color compensation input range	ON: L
35	CNR SW	O	Control output for CNR ON/OFF	ON: L
36	SDA4	I/O	I2C BUS for CXA2069Q (AV selection SW), CXA1315M (DAC for AV I/O) control	–
37	SDA3	O	TC9078F (aspect conversion IC), 87C654 (line doubler control microprocessor), SAA7165 (D/A conversion), I2C BUS for control	–
38	SCL4	O	Same as SDA4	–
39	SCL3	O	Same as SDA3	–

Pin No.	Pin Name	I/O	Function	ACT
40	AUX SW	O	Switches between external double speed component input signal, DTV 1080 signal, and double speed component signal double speed signal processed inside the unit	External double speed: H Others: L
41	COMP3 MUTE	O	Sub-screen component signal (15K) mute output	Mute: H
42	COMP2 MUTE	O	Main-screen component signal (15K) mute output	Mute: H
43	COMP1 MUTE	O	Double speed component signal (31.5K/33.75K) mute output	Mute: H
44	H OSC SW	O	Horizontal free-running frequency switching signal	31 K: H, 33 K: L
45	LIN WHITE	I	Unused	Sync with CUT B
46	NC	–	Unused	Unused
47	NC	–	Unused	Unused
48	NC	–	Unused	Unused
49	CC1-BLK	O	BLK output for main-screen CCD	Positive polarity
50	CC1-B	O	B output for main-screen CCD	Positive polarity
51	CC1-G	O	G output for main-screen CCD	Positive polarity
52	CC1-R	O	R output for main-screen CCD	Positive polarity

■ PD5497B9 (TUNER u-COM: IC2203)

CCD µ-COM

● Pin Function

Pin No.	Pin Name	I/O	Function	ACT
1	DH BLK	I	Sync signal double speed HBLK input for CCD display	Positive polarity
2	V BLK2	I	Sync signal VBLK input for CCD display	Positive polarity
3	OPTION	I	Voltage input for switching software destination	P: L, S: H *1
4	NC	I	Unused	–
5	NC	I	Unused	–
6	NC	I	Unused	–
7	NC	I	Unused	–
8	NC	I	Unused	–
9	NC	I	Unused	–
10	NC	I	Unused	–
11	NC	I	Unused	–
12	NC	I	Unused	–
13	NC	I	Unused	–
14	NC	I	Unused	–
15	NC	I	Unused	–
16	NC	I	Unused	–
17	NC	I	Unused	–
18	AVCC	–	Connected to analog power supply, +5V	–
19	HLF	–	Connected to external part for CCD timing signal generation circuit	–
20	RVCO	–	Connected to external part for CCD timing signal generation circuit	–
21	VHOLD	–	Connected to external part for CCD reference voltage generation circuit	–
22	CC Y2	I	Video signal input for detection of sub-screen CCD, V CHIP	Positive polarity
23	CNVSS	–	Connected to VSS	–
24	XIN	–	Input pin of main lock generation circuit	–
25	XOUT	–	Output pin of main lock generation circuit	–

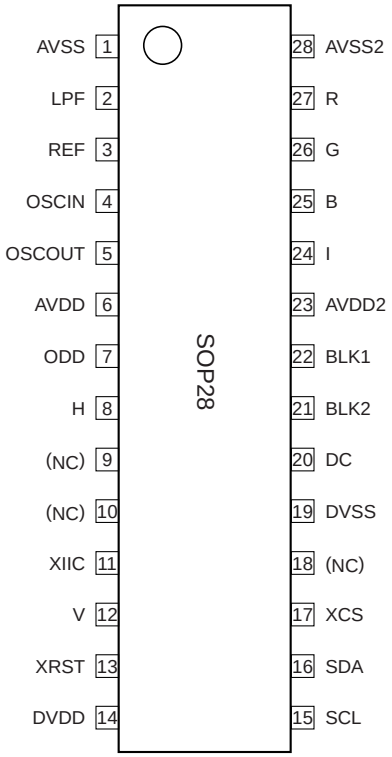
Pin No.	Pin Name	I/O	Function	ACT
26	VSS	–	Supplies 0V	–
27	VCC	–	Supplies +5V power supply	–
28	OSC1	I	Clock input for display	–
29	OSC2	I/O	Clock output for display	–
30	RESET	I	RESET input	RESET:L
31	NC	I	Unused	–
32	NC	I	Unused	–
33	NC	I	Unused	–
34	NC	I	Unused	–
35	NC	I	Unused	–
36	NC	I	Unused	–
37	SDA1	I/O	I2C BUS for communication with main microprocessor	–
38	NC	I	Unused	–
39	SCL1	O	Same as SDA1	–
40	NC	I	Unused	–
41	NC	I	Unused	–
42	NC	I	Unused	–
43	NC	I	Unused	–
44	NC	I	Unused	–
45	NC	I	Unused	–
46	NC	I	Unused	–
47	NC	I	Unused	–
48	NC	I	Unused	–
49	CC2-BLK	O	BLK output for sub-screen CCD	Positive polarity
50	CC2-B	O	B output for sub-screen CCD	Positive polarity
51	CC2-G	O	G output for sub-screen CCD	Positive polarity
52	CC2-R	O	R output for sub-screen CCD	Positive polarity

*1 P: AWV1715
S: AWV1723

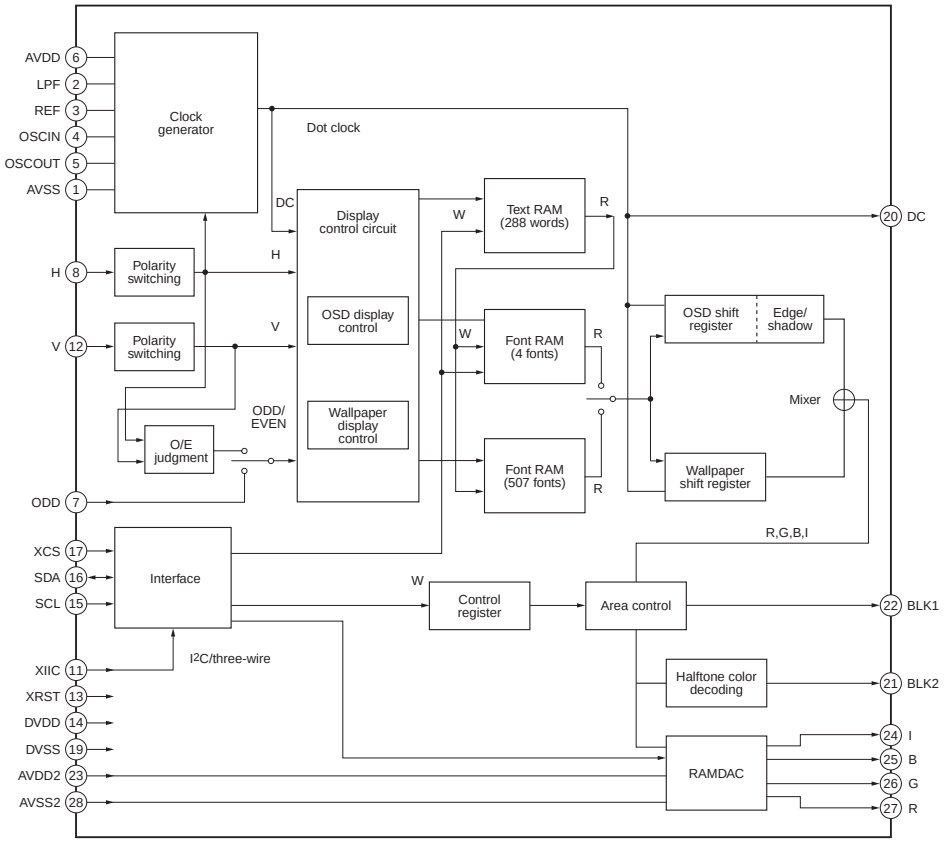
■ PD0264AM (TUNER u-COM ASSY: IC2206)

OSD (On-Screen Display) IC

● **Pin Assignment**



● **Block Diagram**



● Pin Function

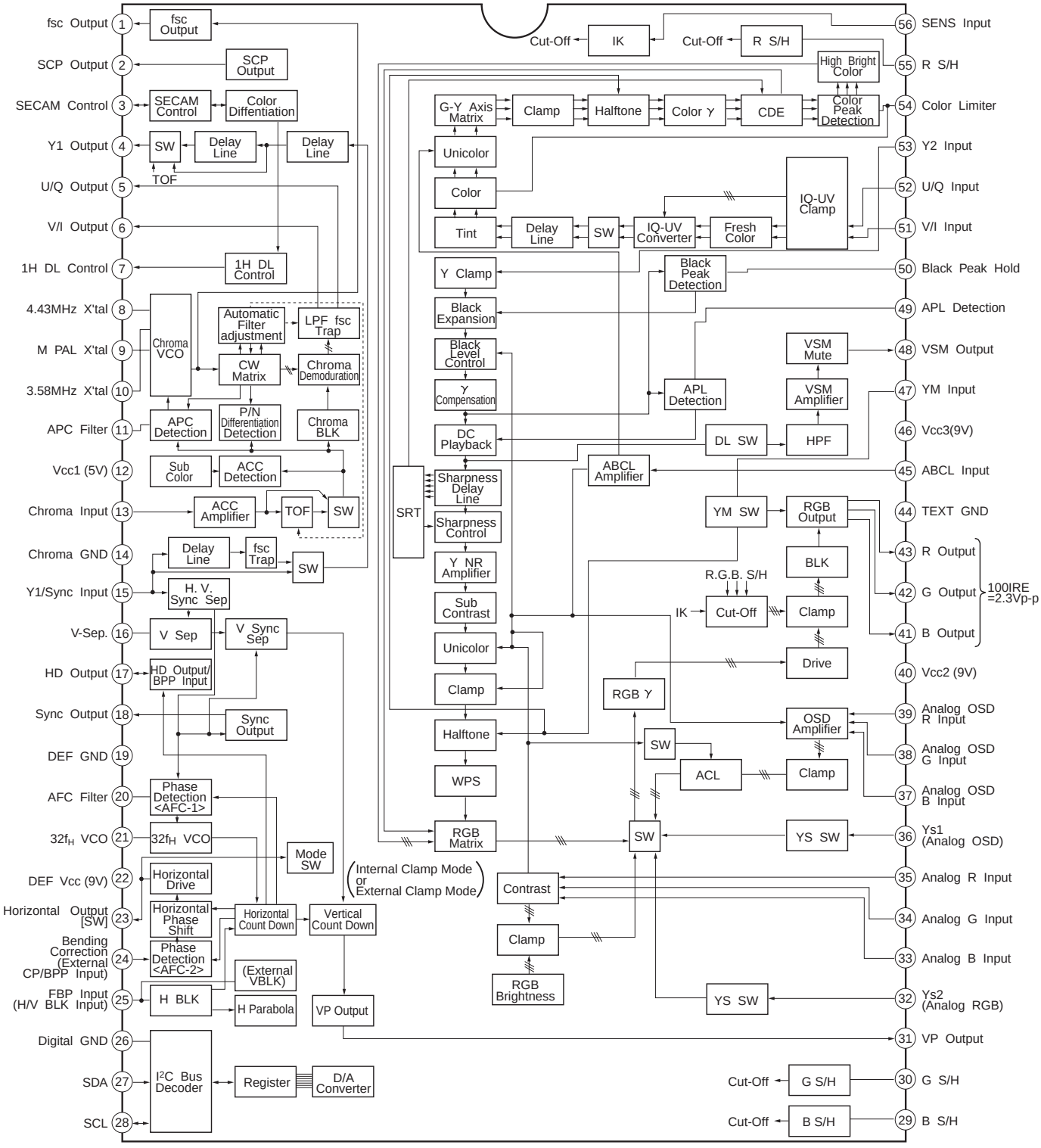
Pin No.	Pin Name	I/O	Function
1	AVSS	—	Ground pin of the analog circuit section.
2	LPF	I	An external low-pass filter is connected.
3	REF	I	The free-running frequency of VCO is determined.
4	OSCIN	I	Oscillation input pin. This pin must be secured to the ground level.
5	OSCOUT	O	Oscillation output pin. (NC)
6	AVDD	—	Pin through which power is supplied to the analog circuit section.
7	ODD	I	Pin through which the field judging signal is input. When the signal goes to “H”, it becomes ODD.
8	H	I	The horizontal synchronization signal is input. (Input polarity can be set.)
9	(NC)	—	
10	(NC)	—	
11	XIIC	I	Mask option function. When the serial three-wire is used, this terminal is usually fixed to “H”.
12	V	I	The vertical synchronization signal is input. (Input polarity can be set.)
13	XRST	I	When set at “L”, the inside of IC is initialized.
14	DVDD	I	Pin through which power is supplied to the digital circuit section.
15	SCL	I	Serial clock input terminal. When set at I^2C, this terminal functions as SCL. When the serial three-wire is used, this terminal functions as the serial clock input terminal.
16	SDA	I/O	Serial data input and output terminal. When set at I^2C, this terminal functions as SDA. When the serial three-wire is used, this terminal functions as the serial data input terminal.
17	XCS	I	Chip select input terminal. When set at I^2C, this terminal is not used; it is fixed to either “L” or “H”. When the serial three-wire is used and this terminal is level “L”, the serial data and serial clock are enabled. When the serial three-wire is used and this terminal is level “H”, the serial data and serial clock are disabled.
18	(NC)	—	
19	DVSS	—	Ground pin of the digital circuit section.
20	DC	O	This terminal can be set to output the dot clock.
21	BLK2	O	This terminal outputs the timing of blanking 2 in the form of positive logic.
22	BLK1	O	This terminal outputs the timing of blanking 1 in the form of positive logic.
23	AVDD2	I	This terminal is the pin through which power is supplied to the DAC output port system.
24	I	O	This terminal outputs the intensity signal.
25	B	O	This terminal outputs the blue signal.
26	G	O	This terminal outputs the green signal.
27	R	O	This terminal outputs the red signal.
28	AVSS2	I	This terminal is the ground pin of the DAC output port system.

■ TA1276AN (VIDEO ASSY: IC5251)

CHROMA SYNC DEFLECTION PROCESSING IC

PAL/NTSC SYSTEM COLOR TV IC

● **Block Diagram**

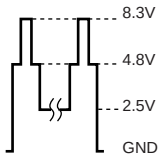
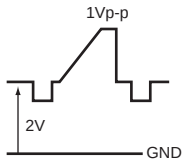
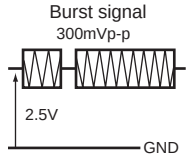
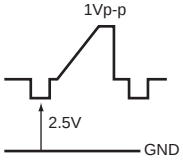


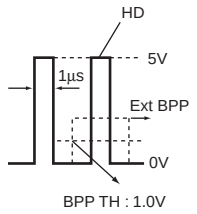
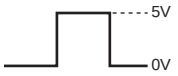
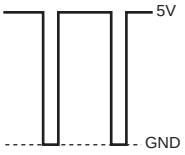
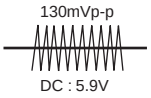
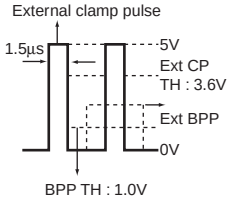
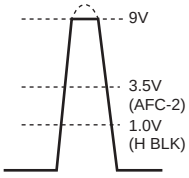
● The double speed mode can be set by connecting Pin 23 to VCC.

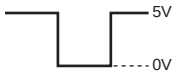
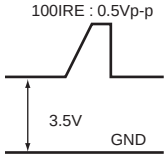
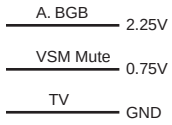
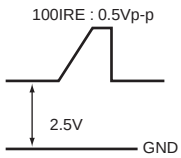
(Note)

[ ] indicates for double speed mode. (External clamp pulse input mode)

● Pin Function

Pin No.	Pin Name	I/O	Function	I/O Signal
1	fsc output	O	Outputs the VCXO oscillation waveform. Inputs the 3.58 NTSC signal, and the output DC becomes 3.2V only for color. It is 1.4V for Black/white and other signals.	DC 3.58 NTSC colored:3.2V Black/white/Other system:1.4V AC 0.6 Vp-p
2	SCP output	O	Outputs SCP (Sand Castle Pulse). The output signal is clamp pulse, horizontal blanking pulse, and vertical blanking.	
3	SECAM control	I/O	I/O pin for controlling the SECAM demodulation IC.	When PAL/NTSC:4.0V When SECAM:0.75V
4	Y1 output	O	Outputs the Y signal passed through the fsc TRAP (TRAP can be turned ON/OFF by the bus) and Y delay line circuit.	
5	U/Q output	O	Outputs the B-Y (U) signal or Q signal. Incorporates the LPF for eliminating carrier.	DC 2.5V Rainbow color bar: 360mVp-p
6	V/I output	O	Outputs the R-Y (V) signal and I signal. Incorporates the LPF for eliminating carrier.	DC 2.5V Rainbow color bar:360 mVp-p
7	1H DLcontrol	O	Outputs the PAL/SECAM/NTSC differential results. Maintains the voltage just before for black/white differentiation.	8.4V : PAL 4.3V : SECAM 0V : NTSC
8	4.43MHz X'tal	I	Connected to X'tal.	DC 4.0V 90 mVp-p
9	M PAL X'tal	I		
10	3.58MHz X'tal	I		
11	APC filter	O	Connected to the APC filter for chroma demodulation.	DC
12	VCC1 (5V)	—	VCC of chroma block I^2 bus block.	–
13	Chroma input	I	Chroma input. Input the Y/C separated chroma signal.	
14	Chroma GND	—	Chroma processing block GND.	–
15	Y1/sync input	I	Composite video signal or Y signal input.	
16	V-Sep	O	Connected to the vertical sync separation filter.	DC 6.4V

Pin No.	Pin Name	I/O	Function	I/O Signal
17	HD output	O	(1) When bus HD-OUT=0, outputs the HD pulse imposed with AFC (pulse width:1 us). Also provided with a BPP (black peak detection stop pulse) signal external input function. (2) When bus HD-OUT=1, and AKB is ON, outputs the AKB reference period pulse.	(1)  (2) 
18	Sync output	O	Outputs the sync signal separated in the sync separation circuit.	
19	DEF GND	—	DEF block GND.	–
20	AFC filter	O	Connected to the horizontal AFC filter. Determines the horizontal output frequency at the voltage of this pin.	DC
21	32fH VCO	O	Connected to the ceramic oscillator for horizontal oscillation.	
22	DEF VCC (9V)	—	VCC of the DEF block.	–
23	Horizontal output (Mode SW)	O	Horizontal output pin.	HIGH : 3.2V LOW : 0.2V
24	Bending correction (External CP/BPP Input)	I	(1) Normal scan mode Corrects bending of the screen during high voltage changes. (2) Double speed mode Inputs the clamp pulse externally when this mode.	(1) DC 4.5V (2) 
25	FBP input	I	Inputs the FBP for generating the pulse for horizontal AFC2, Y smoothing, horizontal blanking.	
26	Digital GND	—	I^2L block GND pin.	–
27	SDA	I/O	I^2C bus SDA pin.	–
28	SCL	I	I^2C bus SCL pin.	–

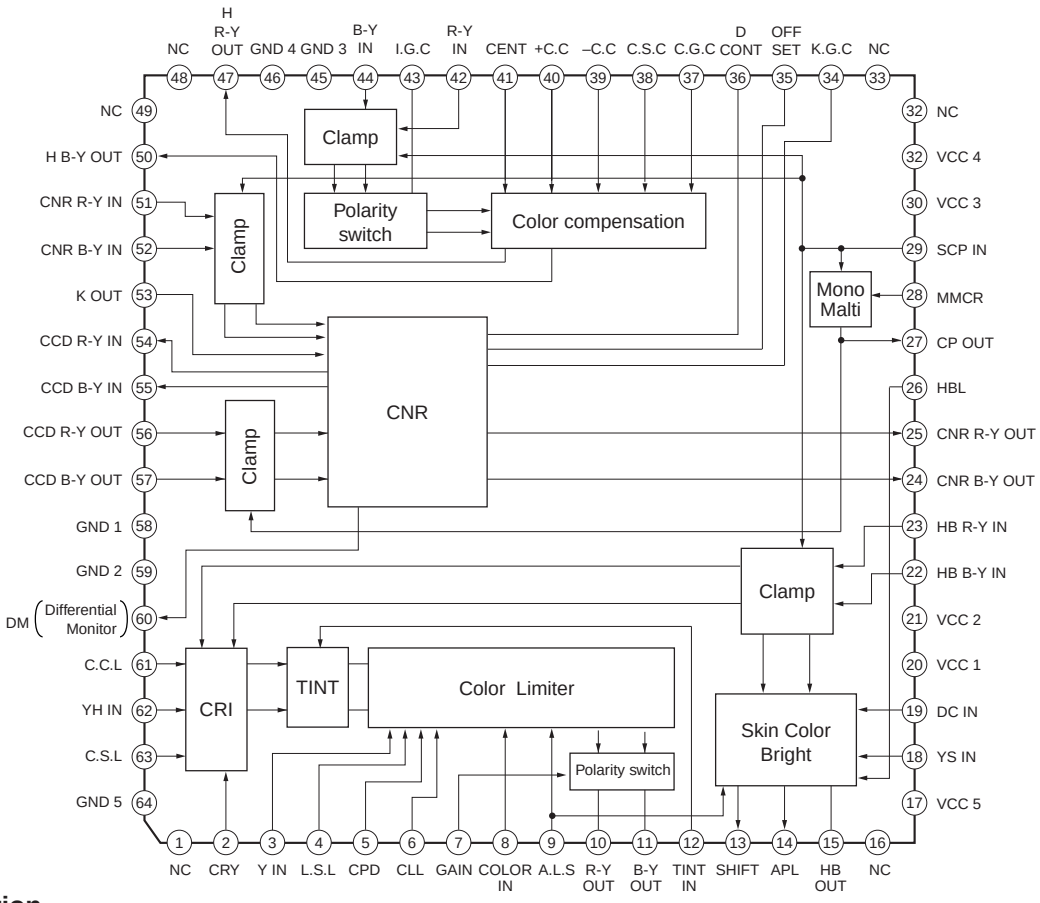
Pin No.	Pin Name	I/O	Function	I/O Signal
29	B S/H	O	S/H (sample hold) pin for AKB mode or clamp mode.	DC
30	G S/H	O	S/H (sample hold) pin for AKB mode or clamp mode.	DC
31	VP output	O	Vertical pulse output.	
32	YS2	I	Switch for switching the internal RGB signal and analog RGB (pins 33, 34, 35). The VM output is muted when YS2 SW is ON.	
33	Analog B input	I	Analog RGB input pins.	
34	Analog G input	I		
35	Analog R input	I		
36	YS1	I	Switch for switching between the internal RGB signal and OSD/ analog RGB (pins 37, 38, 39). The VSM output is muted when YS1 SW is ON.	
37	Analog OSD B input	I	OSD signal or analog RGB input pins.	
38	Analog OSD G input	I		
39	Analog OSD R input	I		
40	VCC2 (9V)	—	Text block VCC pin.	–
41	B output	O	RGB output.	 At Cont Max. BRT Cent.
42	G output	O		
43	R output	O		
44	TEXT GND	—	TEXT block GND pin.	–
45	ABCL input	I	External unicolor, brightness, dynamic ABL control pin.	ABCL OFF: Higher than 6V
46	VCC3 (9V)	—	VCC pin of the picture quality and color difference block.	–

Pin No.	Pin Name	I/O	Function	I/O Signal
47	YM input	I	Internal RGB signal halftone SW.	Soft AKB 7.0V Halftone 0.75V TV GND
48	VSM output	O	Outputs the DC played back Y signal which had passed through HPF. The output is muted by the pins 32 and 36 switches.	DC 3.5V
49	APL detection	O	Connected to the filter for correcting the DC playback rates.	DC
50	Black peak hold	I	Connected to the filter for controlling the black expansion gain of the black expansion circuit.	DC
51	V/I input	I	Pin for inputting the R-Y (V)/I signal and B-Y (U)/Q signal.	When Burst:Chroma=1:1: 360 mVp-p DC: 5.0V
52	U/Q input	I		
53	Y2 input	I	Pin for inputting the Y signal.	1Vp-p (Including sync) 6.3V GND
54	Color limiter	O	Connected to the filter for detecting the color limit.	DC
55	R S/H	O	Same as pins 29 and 30.	DC
56	SENSE input	I	Inputs the IK feedback signal from the CRT.	R G B 1.5V

■ AN5344FBP (SUB VIDEO ASSY: IC4201)

COLOR CONTROL IC

● **Block Diagram**



● **Pin Function**

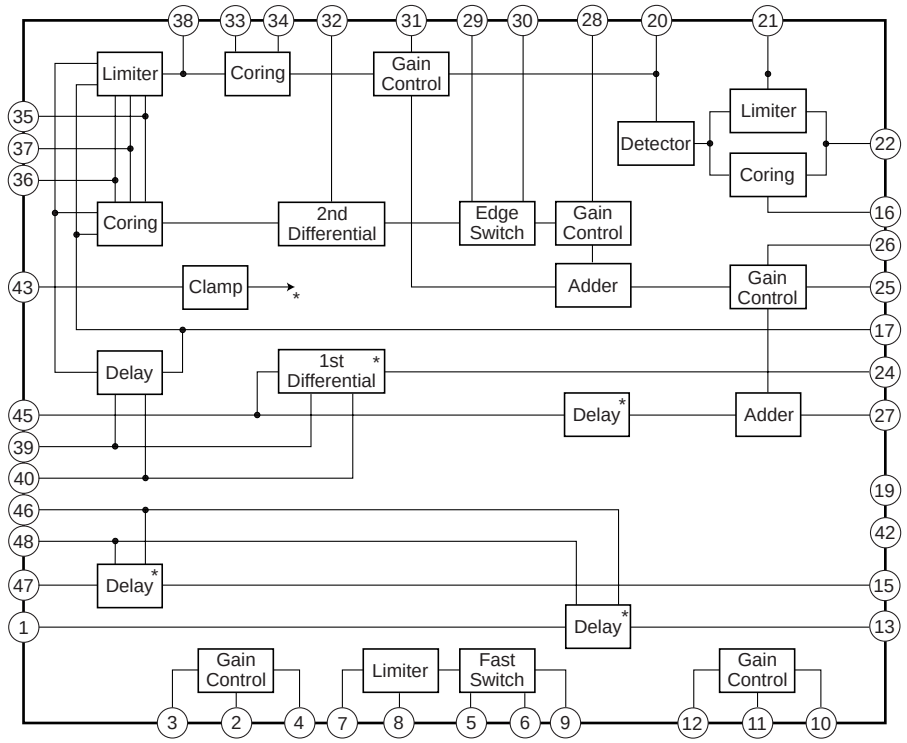
Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
1	NC	—	NC	19	DC IN	I	External DC input
2	CRI	I	CRI correction amount	20	VCC 1	—	VCC1 (Main)
3	Y IN	I	Y input	21	VCC 2	—	VCC2 (Clamp system)
4	L.S.L	I	Limit slice level	22	HB B-Y IN	I	Skin color bright B-Y input
5	CPD	I	Color peak detection	23	HB R-Y IN	I	Skin color bright R-Y input
6	CLL	I	Color limit level	24	CNR B-Y OUT	O	CNR B-Y output
7	GAIN	I	Output polarity gain control	25	CNR R-Y OUT	O	CNR R-Y output
8	COLOR IN	I	Color control voltage	26	HBL	—	(Skin color bright correction amount) NC
9	A.L.S	I	APL connection limiter switch	27	CP OUT	—	Clamp pulse output
10	R-Y OUT	O	R-Y output	28	MMCR	I	Monostable multivibrator CR
11	B-Y OUT	O	B-Y output	29	SCP IN	I	SCP input
12	TINT IN	I	Tint control voltage	30	VCC 3	—	VCC3 (B-Y system)
13	SHIFT	O	APL shift adjustment	31	VCC 4	—	VCC4 (R-Y system)
14	APL	O	APL detection	32	NC	—	NC
15	HB OHT	—	(Skin color bright output) NC	33	NC	—	NC
16	NC	—	NC	34	K.G.C	—	(K calculation gain control) NC
17	VCC 5	—	VCC5 (For CNR)	35	OFFSET	I	Offset control
18	YS IN	I	YS input	36	D CONT	—	(Differential control) NC

Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
37	C.G.C	I	Color compensation gain control	51	CNR R-Y IN	I	CNR R-Y input
38	C.S.C	I	Color compensation stop control	52	CNR B-Y IN	I	CNR B-Y input
39	– C.C	I	– side compensation control	53	K CONT	I	K control
40	+ C.C	I	+ side compensation control	54	CCD R-Y IN	—	(CCD R-Y input) NC
41	CENT	I	Center axis control	55	CCD B-Y IN	—	(CCD B-Y input) NC
42	R-Y IN	I	R-Y input	56	CCD R-Y OUT	O	CCD R-Y output
43	I.G.C	I	Input polarity gain control	57	CCD B-Y OUT	O	CCD B-Y output
44	B-Y IN	I	B-Y input	58	GND 1	—	GND1 (Main)
45	GND	—	GND 3 (B-Y system)	59	GND 2	—	GND2 (Clamp system)
46	GND	—	GND 4 (R-Y system)	60	DM	—	(Differential monitor) NC
47	H R-Y OUT	O	Skin color compensation R-Y output	61	C.C.L	I	CRI core ring level
48	NC	—	NC	62	YH IN	I	Y high band input
49	NC	—	NC	63	C.S.L	I	CRI slice level
50	H B-Y OUT	O	Skin color compensation B-Y output	64	GND	—	GND5 (For CNR)

■ AN5395FBP (SUB VIDEO ASSY: IC4401)

HDTV IC

● Block Diagram



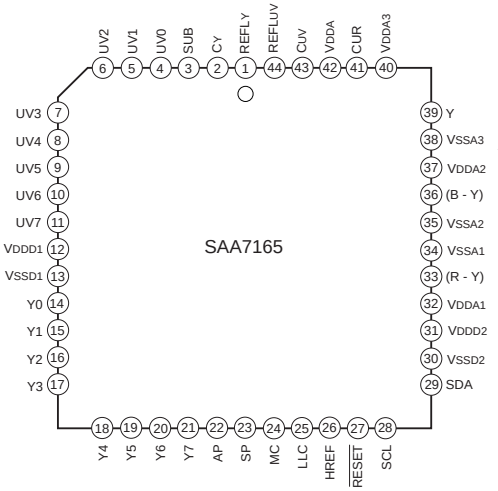
● Pin Function

Pin No.	Function	I/O	Pin No.	Function	I/O
1	PR input	I	25	Sharpness mute control	I
2	VM preamplifier gain control	I	26	Sharpness control	I
3	VM preamplifier input	I	27	Y output	O
4	VM preamplifier output	O	28	Contour gain control	I
5	Sub screen Ys input	I	29	Contour bias	I
6	Ys input	I	30	Secondary differential input	I
7	VM limiter amplifier input	I	31	Minute part gain control	I
8	VM limiter amplifier gain control	I	32	Post-correction primary differential output	O
9	VM limiter amplifier output	O	33	Minute part core ring control	I
10	Sub screen amplifier output	O	34	Minute part core ring bias	I
11	Sub screen amplifier gain control	I	35	Differential signal bias 1	I
12	Sub screen amplifier output	O	36	Contour, minute part separation level control	I
13	PR output	O	37	Differential signal bias 2	I
14	NC	—	38	Minute part limiter output	O
15	PB output	O	39	Y delay line switching switch 1	I
16	DSC large signal gain control	I	40	Y delay line switching switch 2	I
17	Pre-correction primary differential input	I	41	NC	—
18	NC	—	42	GND	—
19	VCC	—	43	Clamp pulse input	I
20	DSC detection output	O	44	NC	—
21	DSC small signal gain control	I	45	Y input	I
22	DSC input	I	46	C delay line switching switch 1	I
23	DSC bias	I	47	PB input	I
24	Pre-correction primary differential output	O	48	C delay line switching switch 2	I

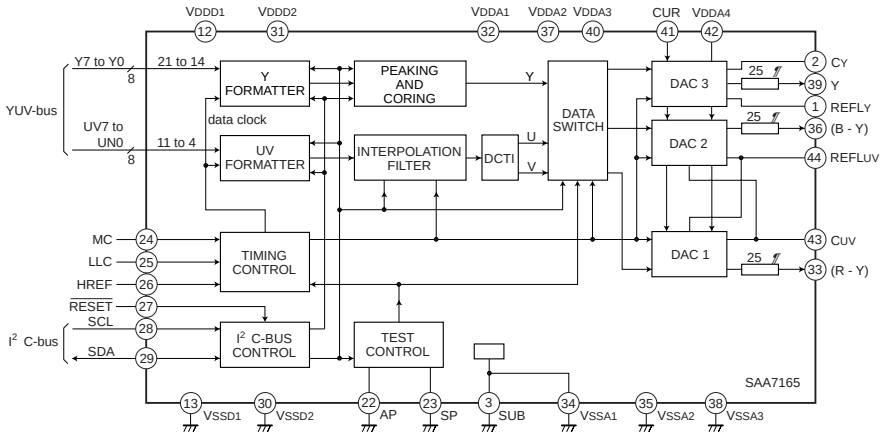
■ SAA7165WP (SUB VIDEO ASSY: IC4702)

VIDEO ENHANCEMENT D/A

● **Pin Assignment**



● **Block Diagram**



● **Pin Function**

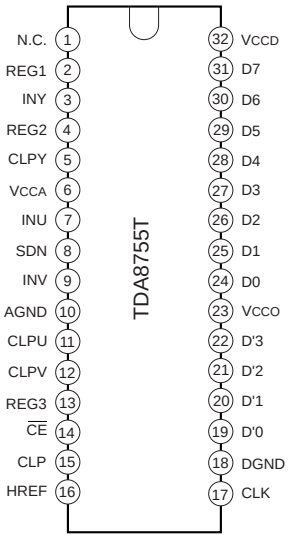
Pin No.	Pin Name	I/O	Function
1	REFL Y	I	Low reference of luminance DAC (connected to VSS A1)
2	CY	I	Capacitor for luminance DAC (high reference)
3	SUB	I	Substrate (connected to VSS A1)
4	UV0	I	UV signal input bit UV7 (digital colour-difference signal)
5	UV1	I	UV signal input bit UV6 (digital colour-difference signal)
6	UV2	I	UV signal input bit UV5 (digital colour-difference signal)
7	UV3	I	UV signal input bit UV4 (digital colour-difference signal)
8	UV4	I	UV signal input bit UV3 (digital colour-difference signal)
9	UV5	I	UV signal input bit UV2 (digital colour-difference signal)
10	UV6	I	UV signal input bit UV1 (digital colour-difference signal)
11	UV7	I	UV signal input bit UV0 (digital colour-difference signal)
12	VDD D1	—	+5V digital supply voltage 1
13	VSS D1	—	Digital ground 1 (0 V)
14	Y0	I	Y signal input bit Y7 (digital luminance signal)
15	Y1	I	Y signal input bit Y6 (digital luminance signal)
16	Y2	I	Y signal input bit Y5 (digital luminance signal)
17	Y3	I	Y signal input bit Y4 (digital luminance signal)
18	Y4	I	Y signal input bit Y3 (digital luminance signal)
19	Y5	I	Y signal input bit Y2 (digital luminance signal)
20	Y6	I	Y signal input bit Y1 (digital luminance signal)
21	Y7	I	Y signal input bit Y0 (digital luminance signal)
22	AP	—	Connected to ground (action pin for testing)
23	SP	—	Connected to ground (shift pin for testing)
24	MC	I	Data cloack CREF (e.g.13.5MHz); at MC=HIGH, the LLC driver-by-two is inactive
25	LLC	I	Line-locked clock signal (LL27=27MHz)
26	HREF	I	Data clock for YUV data inputs (for active line 768Y or 640Y long)
27	$\overline{\text{RESET}}$	I	Reset input (active LOW)

Pin No.	Pin Name	I/O	Function
28	SCL	I	I²C-bus clock line
29	SDA	I	I²c-bus data line
30	VSS D2	—	Digital ground 2(0V)
31	VDD D2	—	+5V digital supply voltage 2
32	VDD A1	—	+5V analog supply voltage for buffer of DAC 1
33	(R-Y)	O	± (R-Y) output signal (analog signal)
34	VSS A1	—	Analog ground 1(0V)
35	VSS A2	—	Analog ground 2(0V)
36	(B-Y)	O	± (B-Y) output signal (analog colour-difference signal)
37	VDD A2	—	+5V analog supply voltage for buffer of DAC 2
38	VSS A2	—	Analog ground 3 (0V)
39	Y	O	Y output signal (analog luminance signal)
40	VDD A3	—	+5V analog supply voltage for buffer of DAC 3
41	CUR	I	Current input for analog output buffers
42	VDD A4	—	Supply and reference voltage for the three DAC S
43	C UV	I	Capacitor for chrominance DAC S (high reference)
44	REF L UV	I	Low reference of chrominance DAC S (connected to VSS A1)

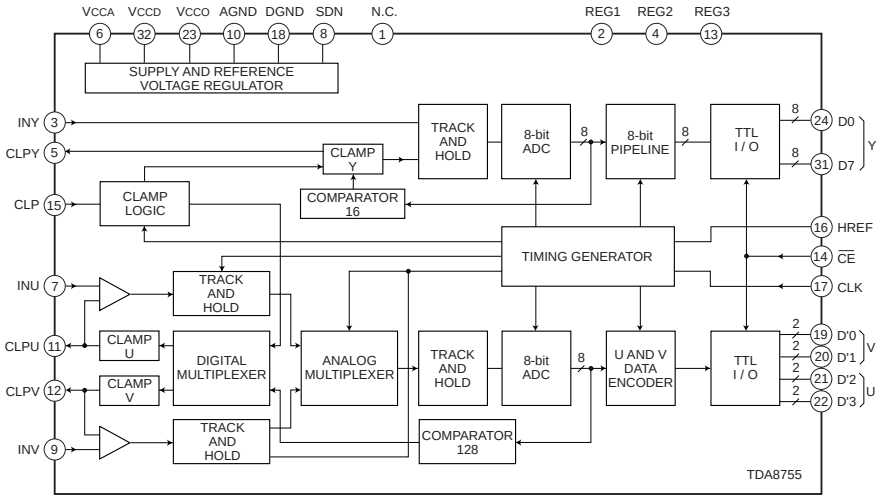
■ TDA8755T (SUB VIDEO ASSY: IC4703)

VIDEO A/D CONVERTER

● **Pin Assignment**



● **Block Diagram**



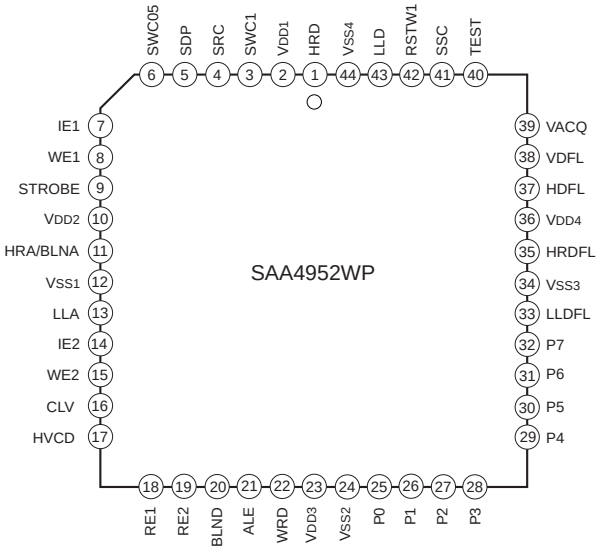
● Pin Function

Pin No.	Pin Name	I/O	Function
1	NC	—	Not connected
2	REG1	I	Decoupling input (internal stabilization loop decoupling)
3	INY	I	Y analog voltage input
4	REG2	I	Decoupling input (internal stabilization loop decoupling)
5	CLPY	O	Y clamp capacitor connection
6	VCC A	—	Analog positive supply voltage (+5V)
7	INU	I	U analog voltage input
8	SDN	O	Stabilizer decoupling node and analog reference voltage (+3.35 V)
9	INV	I	V analog voltage input
10	AGND	—	Analog ground
11	CLPU	O	U clamp capacitor connection
12	CLPV	O	V clamp capacitor connection
13	REG3	I	Decoupling input (internal stabilization loop decoupling)
14	CE	I	Chip enable input (TTL level input active LOW)
15	CLP	I	Clamp control input
16	HREF	I	Horizontal reference signal
17	CLK	I	Clock input
18	DGND	—	Digital ground
19	D'0	O	V data output; bit 0 (n-1)
20	D'1	O	V data output; bit 1 (n)
21	D'2	O	U data output; bit 0 (n-1)
22	D'3	O	U data output; bit 1 (n)
23	VCC O	—	Positive supply voltage for output stages (+5V)
24	D0	O	Y data output; blt 0 (LSB)
25	D1	O	Y data output; blt 1
26	D2	O	Y data output; blt 2
27	D3	O	Y data output; blt 3
28	D4	O	Y data output; blt 4
29	D5	O	Y data output; blt 5
30	D6	O	Y data output; blt 6
31	D7	O	Y data output; blt 7 (MSB)
32	VCC D	—	Digital positive supply voltage (+5V)

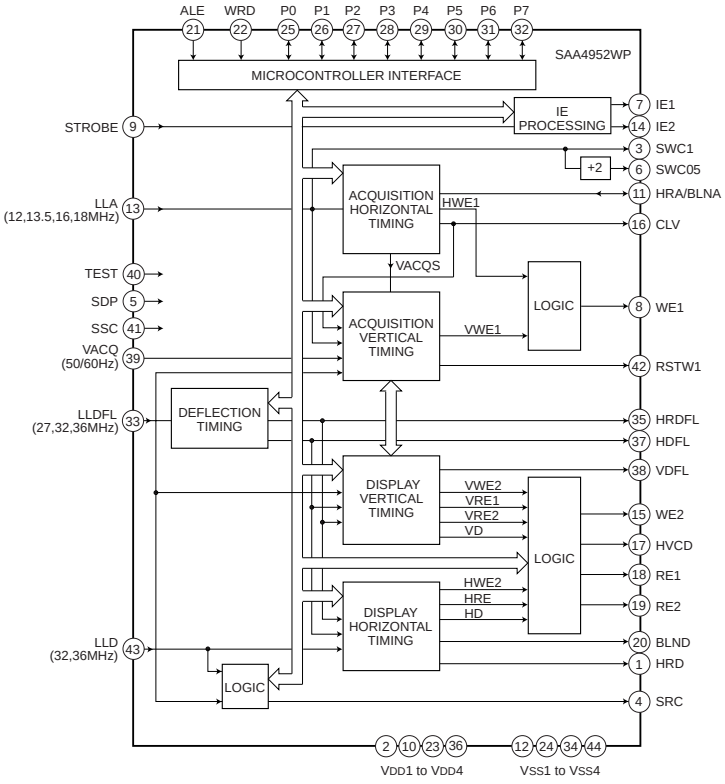
■ SAA4952WP (SUB VIDEO ASSY: IC4704)

MEMORY CONTROLLER

● **Pin Assignment**



● **Block Diagram**



● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	HRD	O	Horizontal reference signal output (display PLL)
2	VDD 1	—	Supply voltage 1
3	SWC1	O	Serial write clock output for memory 1
4	SRC	O	Serial read clock output
5	SDP	I	Select deflection processor input
6	SWC05	O	Serial write clock output,SWC1 divided-by-2
7	IE1	O	Input enable signal output (memory 1)
8	WE1	O	Write enable signal output (memory 1)
9	STROBE	I	Strobe signal input
10	VCC 2	—	Supply voltage 2
11	HRA/BLNA	I/O	Horizontal reference signal output (acquisition part)/horizontal blanking signal input,reset for horizontal acquisition counters(acquisition part)
12	VSS 1	—	Ground 1
13	LLA	I	Line- locked cloack signal input (acquisition part)
14	IE2	O	Input enable signal output (memory 2)
15	WE2	O	Write enable signal output (memory 2)
16	CLV	O	Horizontal signal output (acquisition part)
17	HVCD	O	Horizontal,vertical or composite blanking signal output (display part)
18	RE1	O	Read enable signal output (memory 1)

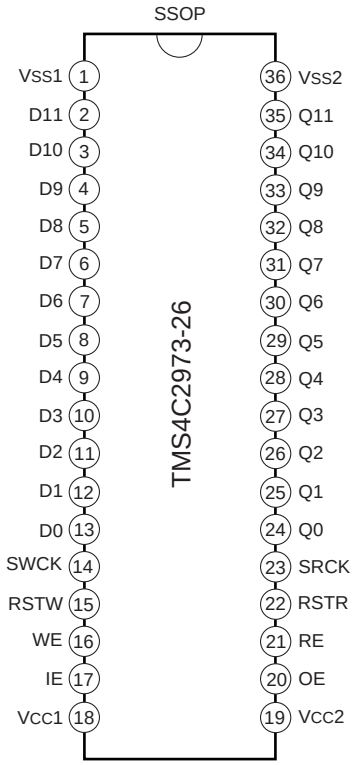
● **Pin Function**

Pin No.	Pin Name	I/O	Function
19	RE2	O	Read enable signal output (memory 2)
20	BLND	O	Horizontal branking signal output (display part)
21	ALE	I	Address latch enable signal input
22	WRD	I	Wrirw/read data signal input
23	VCC 2	—	Supply voltage 3
24	VSS 2	—	Ground 2
25	P0	I/O	Data input/output signal bit 0
26	P1	I/O	Data input/output signal bit 1
27	P2	I/O	Data input/output signal bit 2
28	P3	I/O	Data input/output signal bit 3
29	P4	I/O	Data input/output signal bit 4
30	P5	I/O	Data input/output signal bit 5
31	P6	I/O	Data input/output signal bit 6
32	P7	I/O	Data input/output signal bit 7(MSB = Most Significant Bit)
33	LLDFL	I	Line-locked clock signal input (deflection part)
34	VSS 3	—	Ground 3
35	HRDFL	O	Horizontal reference signal output (deflection part)
36	VDD 4	—	Supply voltage 4
37	HDFL	O	Horizontal synchronization signal output (deflection part)
38	VDFL	O	Vertical synchronization signal output (deflection part)
39	VACQ	I	Vertical synchronization signal input (deflection part)
40	TEST	I	Test input
41	SSC	I	Select signal clock system input
42	RSTW1	O	Reset write signal output (memory 1)
43	LLD	I	Line-locked clock signal input (display part)
44	VSS 4	—	Ground 4

■ TMS4C2973-26 (SUB VIDEO ASSY: IC4705, IC4706)

2.9M FIELD MEMORY

● **Pin Assignment**



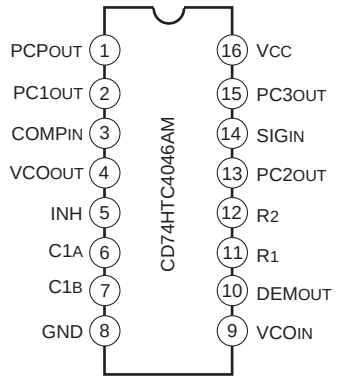
● **Pin Function**

Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
1	Vss1	—	Ground	19	Vcc2	—	3.3V power supply voltage
2	D11	I	Data input	20	OE	I	Output enable
3	D10	I	Data input	21	RE	I	Read enable
4	D9	I	Data input	22	RSTR	I	Serial read clock
5	D8	I	Data input	23	SRCK	I	Reset read
6	D7	I	Data input	24	Q0	O	Data output
7	D6	I	Data input	25	Q1	O	Data output
8	D5	I	Data input	26	Q2	O	Data output
9	D4	I	Data input	27	Q3	O	Data output
10	D3	I	Data input	28	Q4	O	Data output
11	D2	I	Data input	29	Q5	O	Data output
12	D1	I	Data input	30	Q6	O	Data output
13	D0	I	Data input	31	Q7	O	Data output
14	SWCK	I	Serial write clock	32	Q8	O	Data output
15	RSTW	I	Reset write	33	Q9	O	Data output
16	WE	I	Write enable	34	Q10	O	Data output
17	IE	I	Input enable	35	Q11	O	Data output
18	Vcc1	—	3.3V power supply voltage	36	Vss2	—	Ground

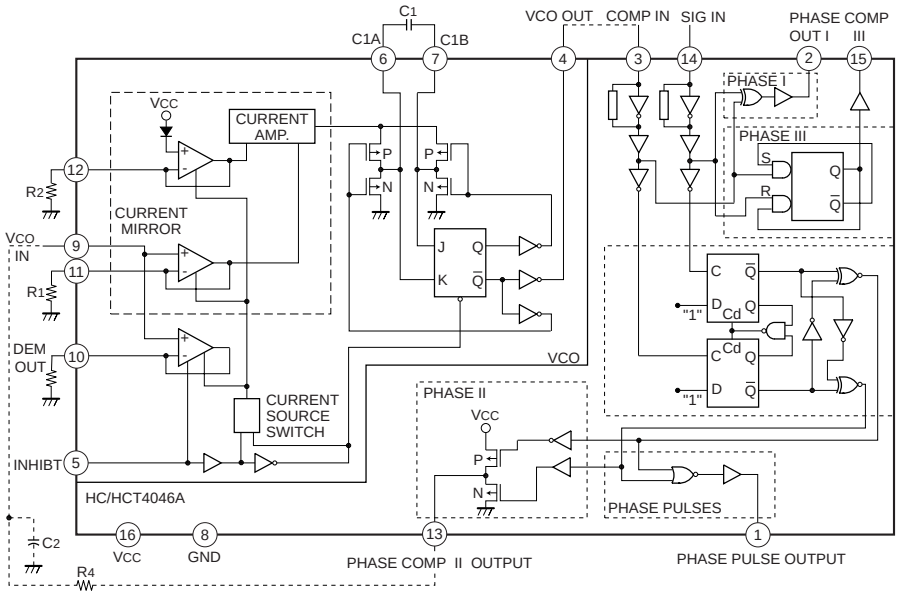
■ CD74HCT4046AM (SUB VIDEO ASSY: IC4713)

PLL IC

● Pin Assignment



● Block Diagram



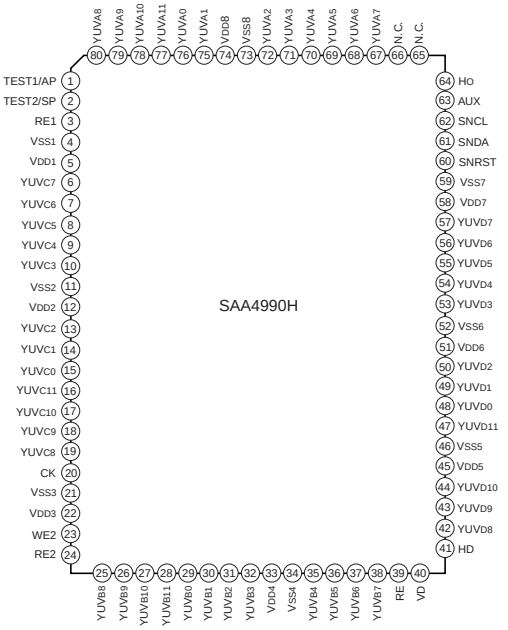
● Pin Function

Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
1	PCPOUT	—	Phase comparator pulse output	9	VCOIN	—	VCO input
2	PC1OUT	—	Phase comparator 1 output	10	DEMOUT	—	Demodulator output
3	COMPIN	I	Comparator input	11	R1	—	Resistor R1 connection
4	VCOOUT	—	VCO output	12	R2	—	Resistor R2 connection
5	INH	I	Inhibit input	13	PC2OUT	O	Phase comparator 2 output
6	C1A	—	Capacitor C1 connection A	14	SIGIN	I	Signal input
7	C1B	—	Capacitor C1 connection B	15	PC3OUT	—	Phase comparator 3 output
8	GND	—	Ground(0V)	16	Vcc	—	Positive supply voltage

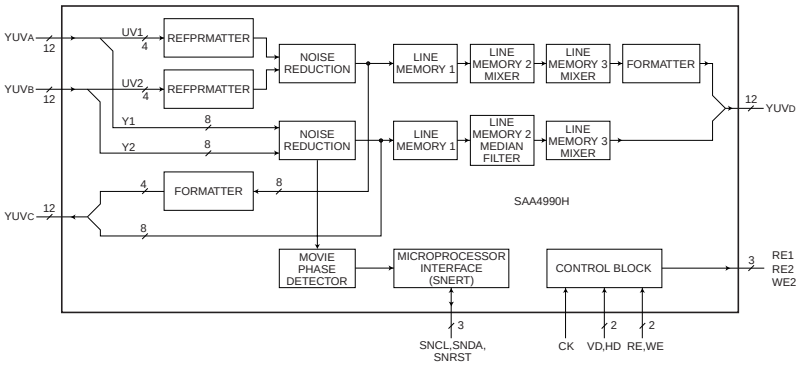
■ SAA4990H (SUB VIDEO ASSY: IC4719)

PROZONIC IC

● Pin Assignment



● Block Diagram



● Pin Function

Pin No.	Pin Name	I/O	Function
1	TEST1/AP	I	Action pin for testing to be connected to Vss
2	TEST2/SP	I	Shift pin for testing to be connected to Vss
3	RE1	O	Read enable to FM1
4	VSS 1	—	Ground 1
5	VDD 1	—	Supply voltage 1
6	YUV C7	O	Y bit 7 to FM2
7	YUV C6	O	Y bit 6 to FM2
8	YUV C5	O	Y bit 5 to FM2
9	YUV C4	O	Y bit 4 to FM2
10	YUV C3	O	Y bit 3 to FM2
11	VSS 2	—	Ground 2
12	VDD 2	—	Supply voltage 2
13	YUV C2	O	Y bit 2 to FM2
14	YUV C1	O	Y bit 1 to FM2
15	YUV C0	O	Y bit 0 to FM2
16	YUV C11	O	UV bit 3 to FM2
17	YUV C10	O	UV bit 2 to FM2
18	YUV C9	O	UV bit 1 to FM2
19	YUV C8	O	UV bit 0 to FM2
20	CK	I	Master clock,nominal 27 or 32 MHz
21	VSS 3	—	Ground 3
22	VDD 3	—	Supply voltage 3
23	WE2	O	Write enable to FM2
24	RE2	O	Read enable to FM2

● **Pin Function**

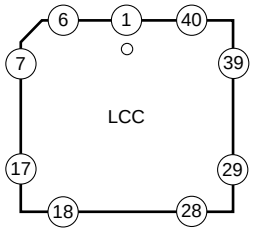
Pin No.	Pin Name	I/O	Function
25	YUV B8	I	UV bit 0 from FM2
26	YUV B9	I	UV bit 1 from FM2
27	YUV B10	I	UV bit 2 from FM2
28	YUV B11	I	UV bit 3 from FM2
29	YUV B0	I	Y bit 0 from FM2
30	YUV B1	I	Y bit 1 from FM2
31	YUV B2	I	Y bit 2 from FM2
32	YUV B3	I	Y bit 3 from FM2
33	VDD 4	—	Supply voltage 4
34	VSS 4	—	Ground 4
35	YUV B4	I	Y bit 4 from FM2
36	YUV B5	I	Y bit 5 from FM2
37	YUV B6	I	Y bit 6 from FM2
38	YUV B7	I	Y bit 7 from FM2
39	RE	I	Master read enable
40	VD	I	Field frequent reset, vertical display
41	HD	I	Horizontal reference signal
42	YUV D8	O	UV bit 0
43	YUV D9	O	UV bit 1
44	YUV D10	O	UV bit 2
45	VDD 5	—	Supply voltage 5
46	VSS 5	—	Ground 5
47	YUV D11	O	UV bit 3
48	YUV D0	O	Y bit 0
49	YUV D1	O	Y bit 1
50	YUV D2	O	Y bit 2
51	VDD 6	—	Supply voltage 6
52	VSS 6	—	Ground 6
53	YUV D3	O	Y bit 3
54	YUV D4	O	Y bit 4
55	YUV D5	O	Y bit 5
56	YUV D6	O	Y bit 6
57	YUV D7	O	Y bit 7
58	VDD 7	—	Supply voltage 7
59	VSS 7	—	Ground 7
60	SNRST	I	Field frequent reset from microcontroller;reset for SNERT interface
61	SNDA	I/O	Data for SNERT interface
62	SNCL	I	Clock for SNERT interface
63	AUX	O	Spre output form line-sequencer
64	Ho	O	Output hold to e.g.LC.display
65	NC	–	Not connected
66	NC	–	Not connected
67	YUV A7	I	Y bit 7 from FM1
68	YUV A6	I	Y bit 6 from FM1
69	YUV A5	I	Y bit 5 from FM1

Pin No.	Pin Name	I/O	Function
70	YUV A4	I	Y bit 4 from FM1
71	YUV A3	I	Y bit 3 from FM1
72	YUV A2	I	Y bit 2 from FM1
73	VSS 8	—	Ground 8
74	VDD 8	—	Supply voltage 8
75	YUV A1	I	Y bit 1 from FM1
76	YUV A0	I	Y bit 0 from FM1
77	YUV A11	I	UV bit 3 from FM1
78	YUV A10	I	UV bit 2 from FM1
79	YUV A9	I	UV bit 1 from FM1
80	YUV A8	I	UV bit 0 from FM1

■ PE6002A9 (SUB VIDEO ASSY: IC4720)

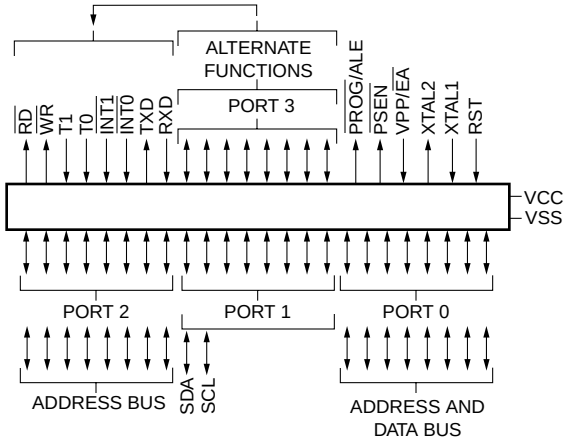
PROGRESSIVE ONE TIME µ-COM

● **Pin Assignment**

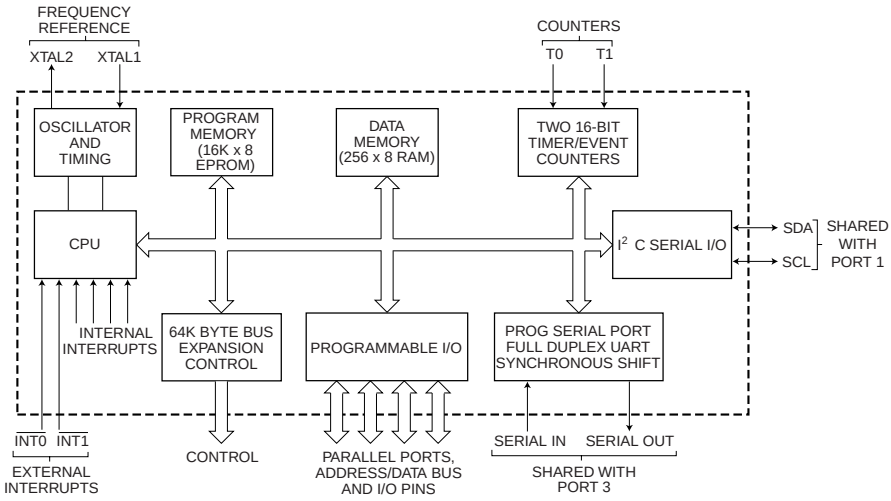


Pin	Function	Pin	Function
1	N.C.	23	NC8
2	P1.0	24	P2.0/A8
3	P1.1	25	P2.1/A9
4	P1.2	26	P2.2/A10
5	P1.3	27	P2.3/A11
6	P1.4	28	P2.4/A12
7	P1.5	29	P2.5/A13
8	P1.6/SCL	30	P2.6/A14
9	P1.7/SDA	31	P2.7/A15
10	RST	32	$\overline{\text{PSEN}}$
11	P3.0/RxD	33	ALE/$\overline{\text{PROG}}$
12	NC8	34	NC8
13	P3.1/TxD	35	$\overline{\text{EA}}$/VPP
14	P3.2/$\overline{\text{INT0}}$	36	P0.7/AD7
15	P3.3/$\overline{\text{INT1}}$	37	P0.6/AD6
16	P3.4/T0	38	P0.5/AD5
17	P3.5/T1	39	P0.4/AD4
18	P3.6/$\overline{\text{WR}}$	40	P0.3/AD3
19	P3.7/$\overline{\text{RD}}$	41	P0.2/AD2
20	XTAL2	42	P0.1/AD1
21	XTAL1	43	P0.0/AD0
22	VSS	44	VCC

● **Logic**



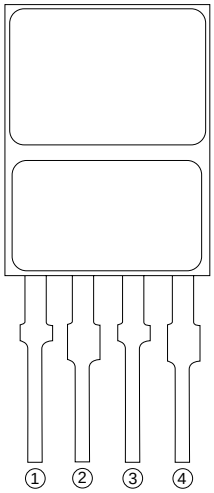
● **Block Diagram**



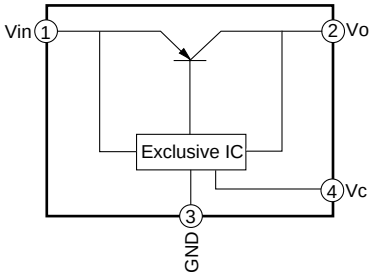
■ PQ05RD1B (SIGNAL ASSY: IC7007, IC7105)

REGULATOR

● **Pin Assignment**



● **Block Diagram**



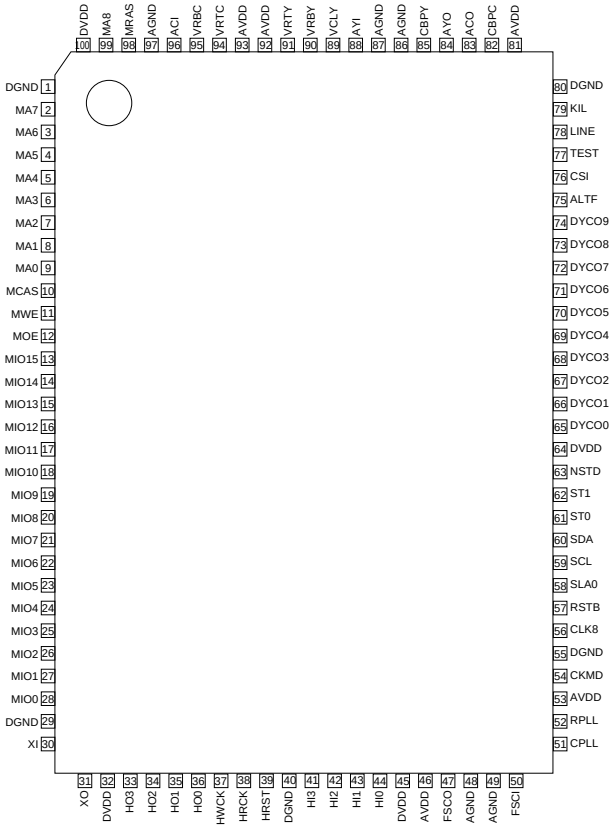
● **Pin Function**

Pin No.	Function	I/O
1	DC input (Vin)	I
2	DC output (Vo)	O
3	GND	–
4	ON/OFF control (Vc)	I

■ uPD64081BGF-3BA (SIGNAL ASSY: IC7002)

3D Y/C SEPARATION IC

● **Pin Assignment**



● Pin Function

Pin No.	Pin Name	I/O	Function
1	DGND	–	Digital block ground
2	MA7	O	Address output for external EDO memory
3	MA6	O	
4	MA5	O	
5	MA4	O	
6	MA3	O	
7	MA2	O	
8	MA1	O	
9	MA0	O	
10	MCAS	O	CAS output for external EDO memory (Active low)
11	MWE	O	WE output for external EDO memory (Active low)
12	MOE	O	OE output for external EDO memory (Active low)
13	MIO15	I/O	Data input/output for external EDO memory
14	MIO14	I/O	
15	MIO13	I/O	
16	MIO12	I/O	
17	MIO11	I/O	
18	MIO10	I/O	
19	MIO9	I/O	
20	MIO8	I/O	
21	MIO7	I/O	
22	MIO6	I/O	
23	MIO5	I/O	
24	MIO4	I/O	
25	MIO3	I/O	
26	MIO2	I/O	
27	MIO1	I/O	
28	MIO0	I/O	
29	DGND	–	fsc generator digital block ground
30	XI	I	fsc generator reference clock input (Connected to X'tal)
31	XO	O	fsc generator reference clock reversal output (Connected to X'tal)
32	DVDD	–	fsc generator digital block power
33	HO3 (MSB)-(LSB)	O	External field memory data output (Open when not used)
34	HO2 (MSB)-(LSB)	O	
35	HO1 (MSB)-(LSB)	O	
36	HO0 (MSB)-(LSB)	O	
37	HWCK	O	Write clock output for external field memory (Open when not used)
38	HRCK	O	Read clock output for external field memory (Open when not used)
39	HRST	O	Reset signal output for external field memory (Open when not used)
40	DGND	–	Digital block ground
41	HI3 (MSB)-(LSB)	I	Input for external field memory (Connected to GND when not used)
42	HI2 (MSB)-(LSB)	I	Input for external field memory (Connected to GND when not used)
43	HI1 (MSB)-(LSB)	I	Input for external field memory (Connected to GND when not used)
44	HI0 (MSB)-(LSB)	I	Input for external field memory (Connected to GND when not used)
45	DVDD	–	Digital block power supply

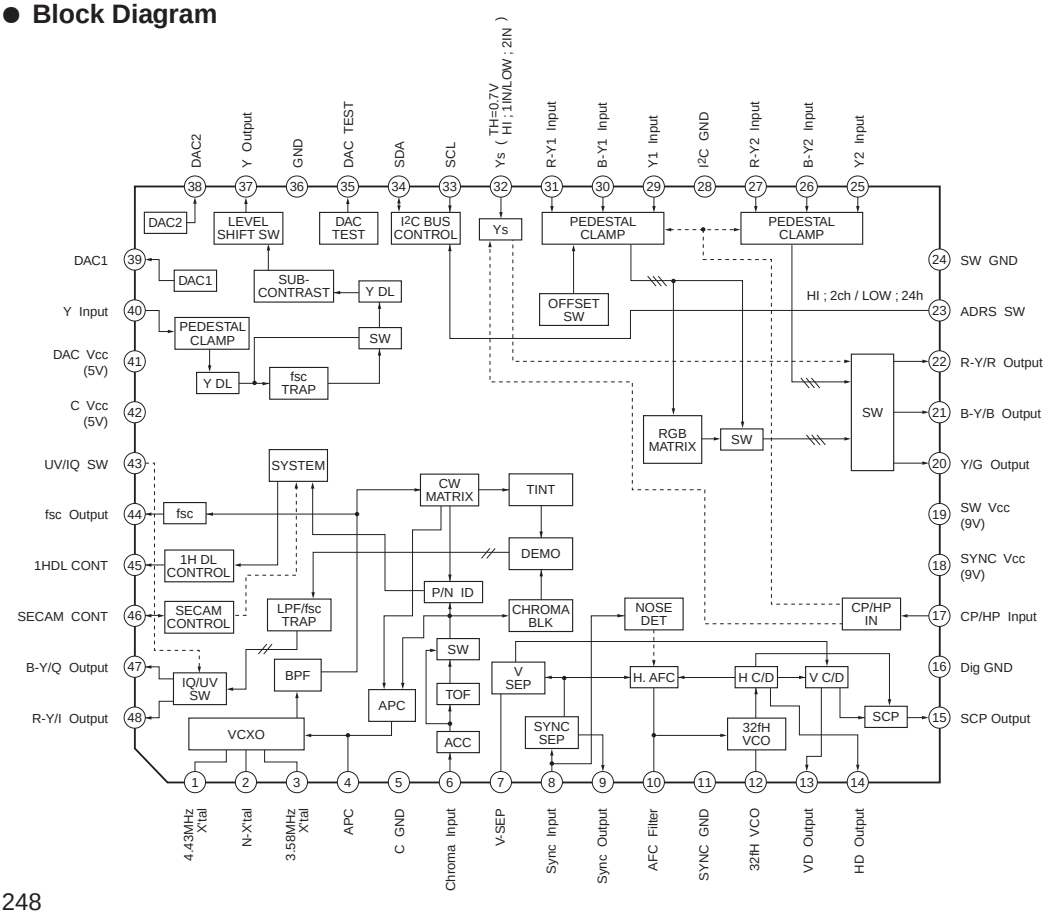
Pin No.	Pin Name	I/O	Function
46	AVDD	–	fsc generator DAC block power supply
47	FSCO	–	fsc generator fsc output
48	AGND	–	fsc generator DAC block ground
49	AGND	–	8fsc-PLL ground
50	FSCI	–	8fsc-PLL fsc input
51	CPLL	–	8fsc-PLL filter output (Opened or connected to GND)
52	RPLL	–	8fsc-PLL frequency compensation output
53	AVDD	–	8fsc-PLL power supply
54	CKMD	I	Clock mode test input (Opened or connected to GND)
55	DGND	–	Digital block ground
56	CLK8	O	8fsc clock output
57	RSTB	I	System reset input (Active Low) (Inputs active low reset pulses from outside)
58	SLA0	I	I^2C bus slave address selection input (L:B8/B9h, H:BA/BBh)
59	SCL	I	I^2C bus clock input (Connected to system SCL line)
60	SDA	I/O	I^2C bus data input/output (Connected to system SDA line)
61	ST0	O	Internal signal monitor output
62	ST1	O	Internal signal monitor output
63	NSTD	O	Non-standard detection monitor output (L:Standard determination, H:Non-standard determination)
64	DVDD	–	Digital block power supply
65	DYCO0 (LSB)-(MSB)	I/O	EXADINS=0, digital YC signal alternate output EXADINS=1, external Y-ADC data input
66	DYCO1 (LSB)-(MSB)	I/O	
67	DYCO2 (LSB)-(MSB)	I/O	
68	DYCO3 (LSB)-(MSB)	I/O	
69	DYCO4 (LSB)-(MSB)	I/O	
70	DYCO5 (LSB)-(MSB)	I/O	
71	DYCO6 (LSB)-(MSB)	I/O	
72	DYCO7 (LSB)-(MSB)	I/O	
73	DYCO8 (LSB)-(MSB)	I/O	
74	DYCO9 (LSB)-(MSB)	I/O	
75	ALTF	O	EXADINS=0, digital YC signal alternate flag output (LY, HC) EXADINS=1, external Y-ADC 4fsc clock output
76	CSI	I	Composite sync input (Active low)
77	TEST	I	IC selection test pin (Opened or connected to GND)
78	LINE	I	Forced inter-line processing selection input (L:Normal processing, H:Forced inter-line processing)
79	KIL	I	External killer input (L:Normal processing, H:Forced YC separation stop)

Pin No.	Pin Name	I/O	Function
80	DGND	–	Digital block ground
81	AVDD	–	Y-DAC, C-DAC power supply
82	CBPC	O	C-DAC phase compensation output
83	ACO	O	C-DAC analog C signal output
84	AYO	O	Y-DAC analog Y signal output
85	CBPY	O	Y-DAC phase compensation output
86	AGND	–	Y-ADC, C-DAC ground
87	AGND	–	Y-DAC ground
88	AYI	I	Y-ADC analog composite signal/Y signal input
89	VCLY	O	Y-ADC clamp potential output
90	VRBY	O	Y-ADC bottom reference voltage output
91	VRTY	O	Y-ADC top reference voltage output
92	AVDD	–	Y-ADC, C-ADC power supply
93	AVDD	–	Y-ADC, C-ADC power supply
94	VRTC	O	C-ADC top reference voltage output
95	VRBC	O	C-ADC bottom reference voltage output
96	ACI	I	C-ADC analog C signal input
97	AGND	–	C-ADC ground
98	MRAS	O	RAS output for external EDO memory (Active low)
99	MA8	O	Address output for external EDO memory
100	DVDD	–	Digital block power supply

■ TA1270AF (SIGNAL ASSY: IC7100, IC7300)

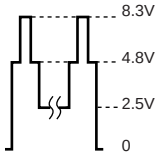
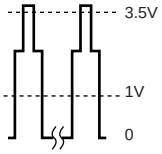
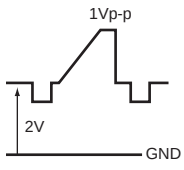
COLOR DEMODULATION SYNC SEPARATION IC

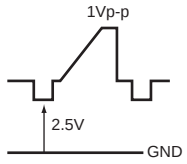
● **Block Diagram**



● Pin Function

Pin No.	Pin Name	I/O	Function	I/O Signal
1	4.43 MHz X'tal	I	Connected to X'tal. Oscillation frequency f0 and frequency adjustment range can be changed in series capacity and parallel capacity respectively. Frequency adjustment range for oscillation frequency f0 with series capacity can be changed to parallel capacity.	DC 4.0V 90 mVp-p
2	N-X'tal	I		
3	3.58 MHz X'tal	I		
4	APC	I	Connected to the chroma demodulation APC filter. VCXO oscillation frequency is determined by the voltage of this pin.	DC
5	C GND	—	Chroma processing circuit GND pin.	–
6	Chroma input	I	Chroma input pin. Inputs Y/C separated chroma signal.	Burst signal 300mVp-p 2.5V GND
7	V-SEP	I	Connected to the filter for vertical sync separation.	DC 6.4V
8	Sync input	I	Sync separation circuit input.	1Vp-p 2.85V GND
9	Sync output	O	Outputs the sync signal separated in the sync separation circuit.	5V GND
10	AFC filter	I	Connected to the filter for horizontal AFC. Horizontal output frequency is determined by the voltage of this pin.	DC
11	SYNC GND	—	GND pin of the sync processing circuit.	–
12	32fH VCO	O	Connected to the ceramic oscillator for horizontal oscillation.	130mVp-p DC : 5.9V
13	VP output	O	Vertical pulse output.	5V 0V
14	HD output	O	Outputs the HD pulse imposed with AFC.	5V 0V

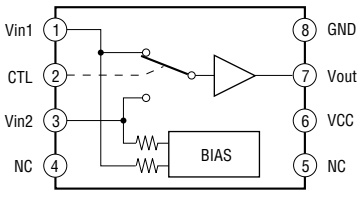
Pin No.	Pin Name	I/O	Function	I/O Signal
15	SCP output	O	Outputs the SCP (Sand Castle Pulse). The output signals are clamp pulse, horizontal blanking pulse, and vertical blanking.	
16	Dig GND	—	Logic block GND pin.	–
17	CP/HP input	I	Input pin for the CP/HP pulse for operating the SW circuit. CP is used as the clamp pulse and HP as the blanking pulse.	
18	SYNC Vcc	—	VCC pin for sync processing block and SW block. Connected to 9V (standard).	–
19	SW Vcc	—		
20	Y/G output	O	Outputs Y/B-Y/R-Y or R/G/B. Switches the YUV/RGB output by bus setting,	
21	B-Y/B output	O		
22	R-Y/R output	O		
23	ADRS SW	I	Pin for switching the slave address. GND - 24H, VCC - 2CH	2CH —— 0.7V 24H —— GND
24	SW GND	—	GND pin for switch block.	–
25	Y2 input	I	Input pin for Y2/B-Y2/R-Y2 (YUV2 input) or R2/G2/B2.	
26	B-Y2 input	I		
27	R-Y2 input (YUV2)	I		
28	I^2C GND	—	I^2C block GND pin.	–
29	Y1 input	I	Input pin for Y1/B-Y1/R-Y1 (YUV1 input) or R1/G1/B1.	
30	B-Y1 input	I		
31	R-Y1 input (YUV1)	I		
32	Ys	I	High speed SW for switching the input of pins 25, 26, 27 (YUV2) and 29, 30, 31 (YUV1). Threshold is 0.7V.	YUV1 —— 0.7V YUV2 —— GND
33	SCL	I	SCL pin for I^2C bus.	–
34	SDA	I/O	SDA pin for I^2C bus.	–
35	DAC TEST	O	DAC monitor pin for IC shipping test.	–
36	GND	—	GND pin.	–
37	Y output	O	Outputs the Y signal passing through the fsc TRAP (can be turned ON/OFF by BUS) and Y delay line circuit.	
38	DAC2	O	1 bit DAC output pin.	–
39	DAC1	O		

Pin No.	Pin Name	I/O	Function	I/O Signal
40	Y input	I	Input pin for composite video signal or Y signal.	
41	DAC Vcc	—	VCC pin for DAC block and chroma processing block. Connected to 5V (standard).	–
42	C Vcc	—		
43	UV/IQ SW	I	Switches between UV demodulation and IQ demodulation. UV demodulation is set when this pin is open and IQ demodulation is set when GND.	UV —— 0.7V IQ —— 0
44	fsc output	O	Outputs the X'tal oscillation. The pin voltage becomes high only when 3.58 NTSC is received.	AC ; 0.6Vp-p DC ; 3.58NTSC : 3.2V Others : 1.4V
45	1HDL CONT	O	Outputs the PAL/SECAM/NTSC differentiation results.	4.3V ; PAL 2.5V ; SECAM 0V ; NTSC
46	SECAM CONT	I/O	Input/output pin to control the SECAM demodulation IC. Determined as SECAM when more than 250 @u@A current is pulled from this pin.	When PAL/NTSC : 4.0V When SECAM (White/black): 0.75V
47	B-Y/Q output	O	The B-Y (U) signal or Q signal is output. Incorporates the LPF for eliminating the carrier inside.	DC ; 2.5V Rainbow color bar ; 360 mVp-p
48	R-Y/I output	O	Outputs the R-Y (V) signal or I signal. Incorporates an LPF for eliminating carrier.	DC ; 2.5V Rainbow color bar ; 360 mVp-p

■ NJM2233BM (SIGNAL ASSY: IC7103, IC7303, IC7305, IC7306)

VIDEO SW

● Block Diagram



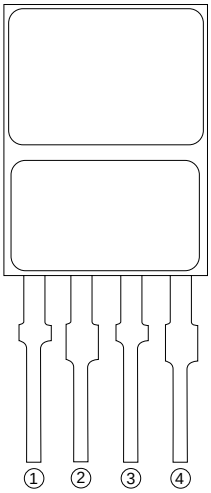
● Control Input – Output Signal

CTL	Function
L	Vin1
H	Vin2

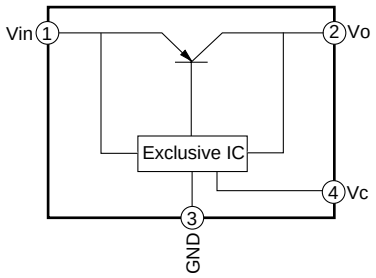
■ PQ09RD1B (SIGNAL ASSY: IC7106)

REGULATOR

● **Pin Assignment**



● **Block Diagram**



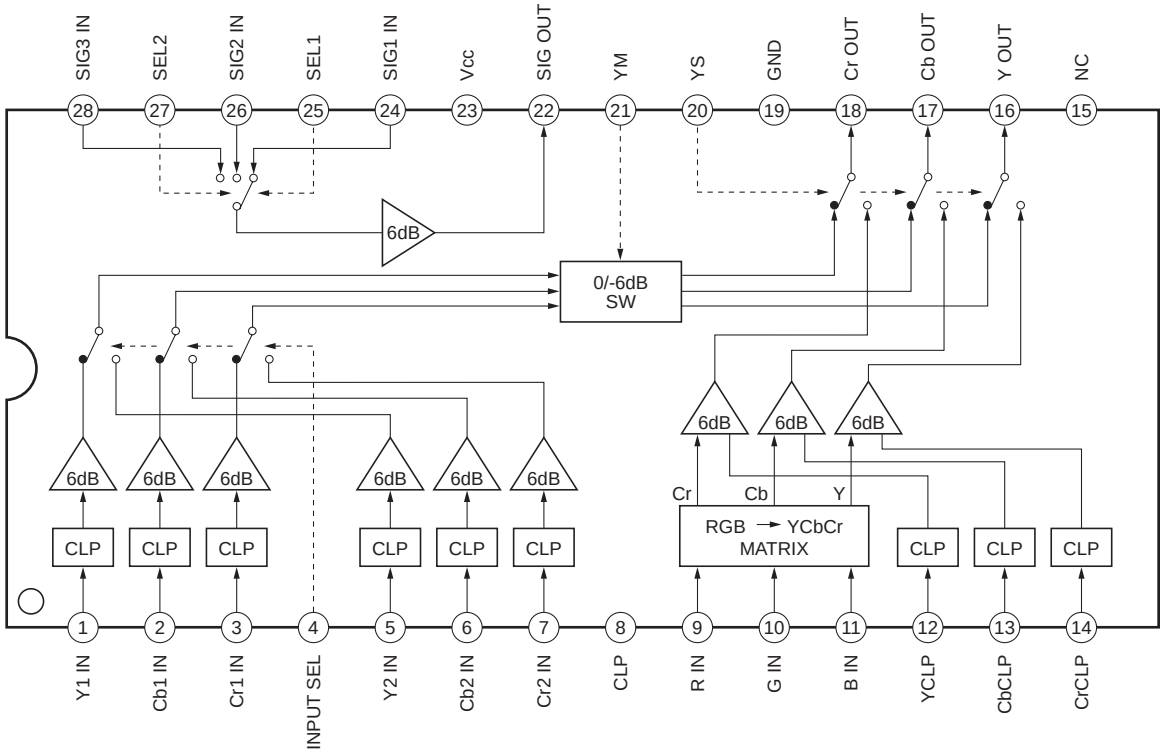
● **Pin Function**

Pin No.	Function	I/O
1	DC input (Vin)	I
2	DC output (Vo)	O
3	GND	–
4	ON/OFF control (Vc)	I

■ CXA2119M (SIGNAL ASSY: IC7250) (For SIGNAL ASSY AWV1725)

Y COLOR DIFFERENCE I/F SW

● **Block Diagram**



● Pin Function

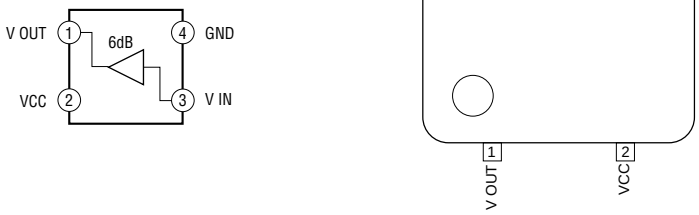
<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Function</th></tr>
<tr><td>1</td><td>Y1 IN</td><td>I</td><td>Pin for inputting the YCbCr signal.</td></tr>
<tr><td>2</td><td>Cb1 IN</td><td>I</td><td>Inputs the YCbCr specifications (0.7 Vp-p for 100% color bar) signal.</td></tr>
<tr><td>3</td><td>Cr1 IN</td><td>I</td><td>The pedestal level of the input signal is clamped at 4V.</td></tr>
<tr><td>4</td><td>INPUT SEL</td><td>I</td><td>Pin for controlling the selection SW of 2-line YCbCr input.
High:Selects the Y1, Cb1, Cr1 input, Low:Selects the Y2, Cb2, Cr2 input
VILMAX=1V, VIHMIN=3V</td></tr>
<tr><td>5</td><td>Y2 IN</td><td>I</td><td>Pin for inputting the YCbCr signal.</td></tr>
<tr><td>6</td><td>Cb2 IN</td><td>I</td><td>Inputs the YCbCr specifications (0.7 Vp-p for 100% color bar) signal.</td></tr>
<tr><td>7</td><td>Cr2 IN</td><td>I</td><td>The pedestal level of the input signal is clamped at 4V.</td></tr>
<tr><td>8</td><td>CLP</td><td>I</td><td>Pin for inputting the clamp pulse.
High:CLP ON, Low:CLP OFF
VILMAX=2.5V, VIHMIN=4V</td></tr>
<tr><td>9</td><td>R IN</td><td>I</td><td>Pin for inputting the R signal.</td></tr>
<tr><td>10</td><td>G IN</td><td>I</td><td>Pin for inputting the G signal.</td></tr>
<tr><td>11</td><td>B IN</td><td>I</td><td>Pin for inputting the B signal.</td></tr>
<tr><td>12</td><td>YCLP</td><td>I</td><td>Capacity connection pin for clamping the Y signal made from the RGB signal.</td></tr>
<tr><td>13</td><td>CbCLP</td><td>I</td><td>Capacity connection pin for clamping the Cb signal made from the RGB signal.</td></tr>
<tr><td>14</td><td>CrCLP</td><td>I</td><td>Capacity connection pin for clamping the Cr signal made from the RGB signal.</td></tr>
<tr><td>15</td><td>NC</td><td>I</td><td>NC pin.</td></tr>
<tr><td>16</td><td>Y OUT</td><td>O</td><td>Output pin of Y signal. The output pedestal level is 3.8V.</td></tr>
<tr><td>17</td><td>Cb OUT</td><td>O</td><td>Output pin of Cb signal. The output pedestal level is 3.8V.</td></tr>
<tr><td>18</td><td>Cr OUT</td><td>O</td><td>Output pin of Cr signal. The output pedestal level is 3.8V.</td></tr>
<tr><td>19</td><td>GND</td><td>—</td><td>GND pin.</td></tr>
<tr><td>20</td><td>YS</td><td>I</td><td>YSSW control pin.
High:Selects the RGB input, Low:Selects the YCbCr input
VILMAX=1V, VIHMIN=3V
Pin for controlling YMSW.</td></tr>
<tr><td>24</td><td>YM</td><td>I</td><td>High:Selects the -6 dB signal., Low:Selects the 0 dB signal.
VILMAX=1V, VIHMIN=3V</td></tr>
<tr><td>22</td><td>SIG OUT</td><td>O</td><td>Output pin for SIG1, SIG2, and SIG3.
Outputs the 6dB signal of the input signal.
The APL of the signal becomes 4.4V when output.</td></tr>
<tr><td>23</td><td>Vcc</td><td>—</td><td>Vcc pin.</td></tr>
<tr><td>24</td><td>SIG1 IN</td><td>I</td><td>Pin for inputting the composite video signal.
Inputs the 1Vp-p (100% white including Sync) signal via the capacity.</td></tr>
<tr><td>25</td><td>SEL1</td><td>I</td><td>Control pin for the output selection SW of the 3 input composite video signals.
<table>
<tr><th>SEL1</th><th>SEL2</th><th>SIG OUT</th></tr>
<tr><td>Low</td><td>Low</td><td>SIG1</td></tr>
<tr><td>High</td><td>Low</td><td>SIG2</td></tr>
<tr><td>Low</td><td>High</td><td>SIG3</td></tr>
<tr><td>High</td><td>High</td><td>Prohibited</td></tr>
</table>
VILMAX=0.5V, VIHMIN=3.5V</td></tr>
<tr><td>26</td><td>SIG2 IN</td><td>I</td><td>Pin for inputting the composite video signal.
Inputs the 1Vp-p (100% white including Sync) signal via the capacity.</td></tr>
</table>

Pin No.	Pin Name	I/O	Function
27	SEL2	I	Control pin for the output selection SW of the 3 input composite video signals. SEL1 / SEL2 / SIG OUT Low / Low / SIG1 High / Low / SIG2 Low / High / SIG3 High / High / Prohibited VILMAX=0.5V, VIHMIN=3.5V
28	SIG3 IN	I	Pin for inputting the composite video signal. Inputs the 1Vp-p (100% white including Sync) signal via the capacity.

■ MM1031XM (SIGNAL ASSY: IC7301, IC7304, IC7500, IC7605)

VIDEO AMP

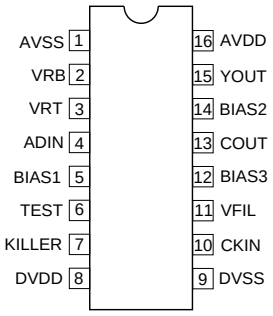
● **Block Diagram**



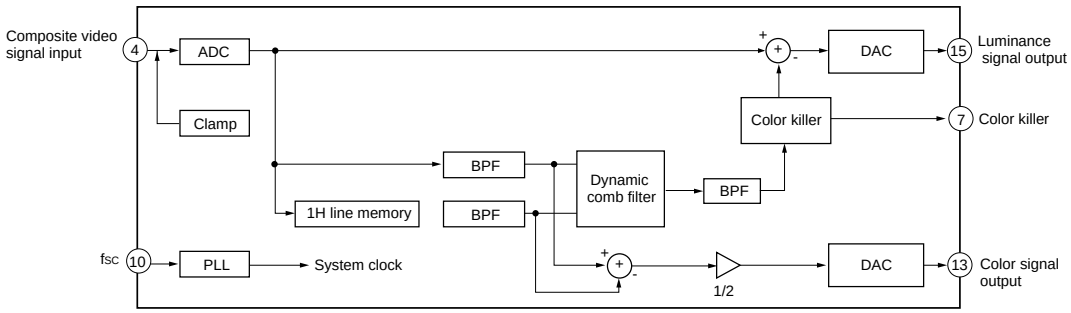
■ TC90A45F (SIGNAL ASSY: IC7307)

2 LINE DIGITAL Y/C SEP IC

● **Pin Assignment**



● **Block Diagram**



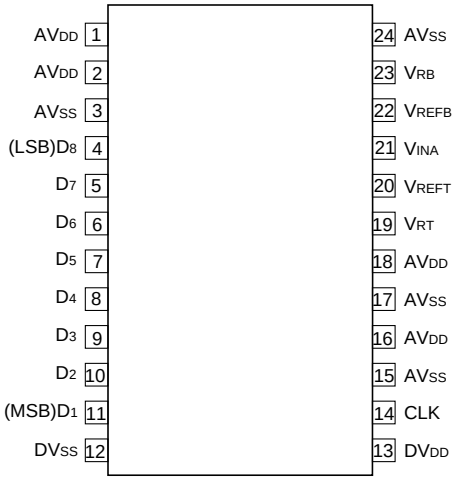
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	AVSS	–	Analog GND
2	VRB	–	Reference pin for ADC.
3	VRT	–	Reference pin for ADC.
4	ADIN	I	Composite video signal input pin.
5	BIAS1	–	Bias pin for ADC.
6	TEST	–	TEST pin. Connected to the digital GND.
7	KILLER	I	Killer circuit setting pin. When set to H level, it will output signals without Y/C separation. Use this pin when inputting B/W signals. H: B/W mode (Y/C separation OFF), L: Normal Y/C separation mode
8	DVDD	–	Digital power supply (+5V)
9	DVSS	–	Digital GND
10	CKIN	I	Clock input.
11	VFIL	–	Connected to the VCO filter.
12	BIAS3	–	DAC bias pin.
13	COUT	O	C signal output
14	BIAS2	–	DAC bias pin.
15	YOUT	O	Y signal output
16	AVDD	–	Analog power supply (+5V)

■ MB40C568HPFV (SIGNAL ASSY: IC7503)

A/D CONVERTER

● **Pin Assignment**



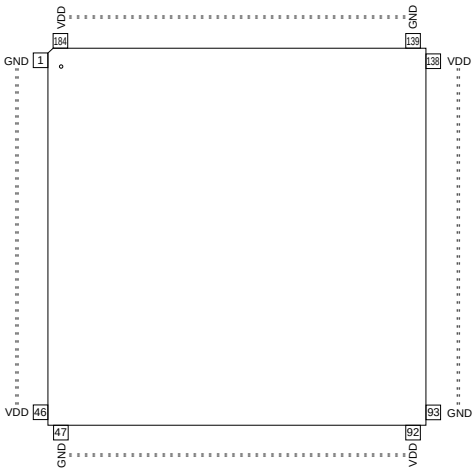
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	AV_{DD}	–	Analog power supply pin (+5 V)
2	AV_{DD}	–	Analog power supply pin (+5 V)
3	AV_{SS}	–	Analog power ground pin (0 V)
4	D_8	O	Digital output pins. D_1: MSB, D_8: LSB
5	D_7	O	
6	D_6	O	
7	D_5	O	
8	D_4	O	
9	D_3	O	
10	D_2	O	
11	D_1	O	
12	DV_{SS}	—	Digital power ground pin (0 V)
13	DV_{DD}	—	Digital power supply pin (+3 or +5 V)
14	CLK	I	Clock input pin
15	AV_{SS}	—	Analog power ground pin (0 V)
16	AV_{DD}	—	Analog power supply pin (+5 V)
17	AV_{SS}	—	Analog power ground pin (0 V)
18	AV_{DD}	—	Analog power supply pin (+5 V)
19	V_{RT}	I	Reference voltage input pin (3 V)
20	V_{REFT}	I	Reference voltage input pin (1 V)
21	V_{INA}	I	Analog input pin. Input range: V_{RB} to V_{RT} (2 Vp-p between 0.5 to 4 V)
22	V_{REFB}	O	Reference voltage output pin. When connected to V_{RB}, the pin generates 0.2 x AV_{DD} (1 V).
23	V_{RB}	I	Reference voltage input pin (1 V)
24	AV_{SS}	—	Analog power ground pin (0 V)

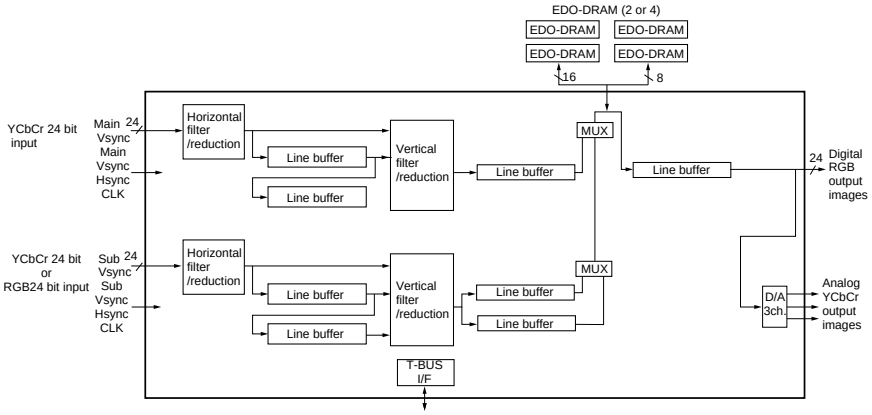
■ MA07132 (SIGNAL ASSY: IC7700)

TWIN PICTURE LSI

● **Pin Assignment**



● **Block Diagram**



● Pin Function

Pin No.	Pin Name	I/O	Function
1	GND	–	
2	Y7MI	I	Main screen Y signal input
3	Y6MI	I	
4	Y5MI	I	
5	Y4MI	I	
6	Y3MI	I	
7	Y2MI	I	
8	Y1MI	I	
9	Y0MI	I	
10	CB7MI	I	Main screen Cb signal input
11	CB6MI	I	
12	CB5MI	I	
13	CB4MI	I	
14	CB3MI	I	
15	CB2MI	I	
16	CB1MI	I	
17	CB0MI	I	
18	CR7MI	I	Main screen Cr signal input
19	CR6MI	I	
20	CR5MI	I	
21	CR4MI	I	
22	CR3MI	I	
23	VDD	–	
24	GND	–	
25	CR2MI	I	Main screen Cr signal input
26	CR1MI	I	
27	CR0MI	I	
28	CKMI	I	Main screen sync clock (32.5 MHz), Used as internal system clock.
29	HSMI	I	Main screen horizontal sync signal input
30	VSMI	I	Main screen vertical sync signal input
31	CLMPMO	O	Clamp pulse output for main screen
32	CK2MO	O	Clock output by frequency dividing CKMI
33	GND	–	
34	HSMO	O	Horizontal sync signal output after elimination of half pulse to main screen horizontal AFCIC
35	CPGDMO	O	Copy guard signal output for main screen
36	HREFMO	O	fH reference signal output to main screen horizontal AFCIC
37	CPMYO	O	Y signal clamp offset PWM output for main screen
38	CPMCBO	O	Cb signal clamp offset PWM output for main screen
39	CPMCRO	O	Cr signal clamp offset PWM output for main screen
40	Y7SI	I	Y signal input/R signal input for sub screen (When inputting VGA)
41	Y6SI	I	
42	Y5SI	I	
43	Y4SI	I	
44	Y3SI	I	
45	Y2SI	I	

Pin No.	Pin Name	I/O	Function
46	VDD	–	
47	GND	–	
48	Y1SI	I	Y signal input/R signal input for sub screen (When inputting VGA)
49	Y0SI	I	
50	CB7SI	I	Cb signal input/G signal input for sub screen (When inputting VGA)
51	CB6SI	I	
52	CB5SI	I	
53	CB4SI	I	
54	CB3SI	I	
55	CB2SI	I	
56	CB1SI	I	
57	CB0SI	I	
58	CR7SI	I	Cr signal input/B signal input for sub screen (When inputting VGA)
59	CR6SI	I	
60	CR5SI	I	
61	CR4SI	I	
62	CR3SI	I	
63	CR2SI	I	
64	CR1SI	I	
65	CR0SI	I	
66	HSSI	I	Sub screen horizontal sync signal input
67	VSSI	I	Sub screen vertical sync signal input
68	CKSI	I	Sync clock for sub screen (32.5 MHz)
69	VDD	–	
70	GND	–	
71	CK2SO	O	Clock output by frequency dividing CKSI (No frequency dividing for VGA images)
72	HSSO	O	Horizontal sync signal output after eliminating half pulse to sub screen horizontal AFCIC
73	HREFSO	O	fH reference signal output to sub screen horizontal AFCIC
74	CPSYO	O	Y signal/R signal clamp offset PWM output for sub screen
75	CPSCBO	O	Cb signal/G signal clamp offset PWM output for sub screen
76	CPSCRO	O	Cr signal/B signal clamp offset PWM output for sub screen
77	CLMPSO	O	Clamp pulse output for sub screen
78	R7O	O	Display screen digital R signal output
79	R6O	O	
80	R5O	O	
81	R4O	O	
82	R3O	O	
83	R2O	O	
84	R1O	O	
85	R0O	O	
86	CPGDSO	O	Copy guard signal output for sub screen
87	G7O	O	Display screen digital G signal output
88	G6O	O	
89	G5O	O	
90	G4O	O	
91	G3O	O	

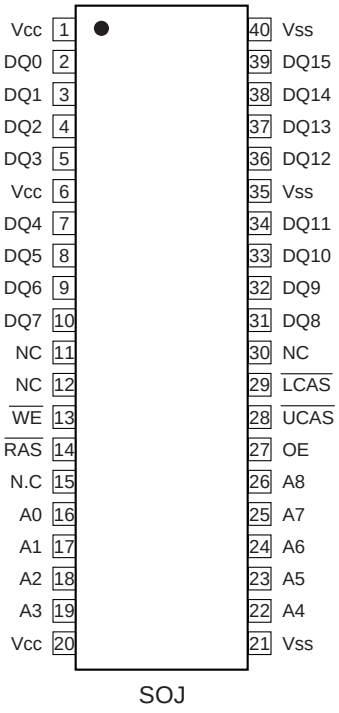
Pin No.	Pin Name	I/O	Function
92	VDD	–	
93	GND	–	
94	G2O	O	Display screen digital G signal output
95	G1O	O	
96	G0O	O	
97	WCKO	O	External D/A -C clock output for RGB output
98	GND	–	
99	B7O	O	Display screen digital B signal output
100	B6O	O	
101	B5O	O	
102	B4O	O	
103	B3O	O	
104	B2O	O	
105	B1O	O	
106	B0O	O	
107	TMC1I	I	Test input (Normally LOW input)
108	TBUSD	I/O	Tbus DATA signal input/output
109	TMC2I	I	Test input (Normally LOW input)
110	TBUSPI	I	Tbus PERIOD signal input
111	TBUSCI	I	Tbus CLOCK signal input
112	RSTI	I	Power on reset input
113	TEST2I	I	Test input (Normally LOW input)
114	TEST1I	I	Test input (Normally LOW input)
115	VDD	–	
116	GND	–	
117	N.C	–	
118	AVDD	–	
119	VOY	O	Display screen analog Y signal output
120	VOCB	O	Display screen analog Cb signal output
121	VOCR	O	Display screen analog Cr signal output
122	AGND	–	
123	AGND	–	
124	N.C	–	
125	VDD	–	
126	GND	–	
127	A8O	O	Address bus of DRAM for multi window
128	A7O	O	
129	A6O	O	
130	A5O	O	
131	VDD	–	
132	GND	–	
133	A4O	O	Address bus of DRAM for multi window
134	A3O	O	
135	A2O	O	
136	A1O	O	
137	A0O	O	

Pin No.	Pin Name	I/O	Function
138	VDD	–	
139	GND	–	
140	CASB1O	O	LCAS, UCAS to DRAM 1 for multi window
141	GND	–	
142	CASB2O	O	LCAS, UCAS to DRAM 2 for multi window
143	GND	–	
144	RASB1O	O	RAS to DRAM 1 for multi window
145	VDD	–	
146	GND	–	
147	RASB2O	O	RAS to DRAM 2 for multi window
148	GND	–	
149	WEB1O	O	Write enable signal to DRAM 1 for multi window
150	OEB1O	O	Output enable signal to DRAM 1 for multi window
151	WEB2O	O	Write enable signal to DRAM 2 for multi window
152	OEB2O	O	Output enable signal to DRAM 2 for multi window
153	VDD	–	
154	GND	–	
155	YSO	O	Digital RGB output range signal
156	D23IO	I/O	Data bus of DRAM for multi window
157	D22IO	I/O	
158	D21IO	I/O	
159	D20IO	I/O	
160	D19IO	I/O	
161	VDD	–	
162	GND	–	
163	D18IO	I/O	Data bus of DRAM for multi window
164	D17IO	I/O	
165	D16IO	I/O	
166	D15IO	I/O	
167	D14IO	I/O	
168	D13IO	I/O	
169	D12IO	I/O	
170	GND	–	
171	D11IO	I/O	Data bus of DRAM for multi window
172	D10IO	I/O	
173	D9IO	I/O	
174	D8IO	I/O	
175	D7IO	I/O	
176	D6IO	I/O	
177	GND	–	
178	D5IO	I/O	Data bus of DRAM for multi window
179	D4IO	I/O	
180	D3IO	I/O	
181	D2IO	I/O	
182	D1IO	I/O	
183	D0IO	I/O	
184	VDD	–	

■ HY514264BJC-50A (SIGNAL ASSY: IC7003, IC7701, IC7702)

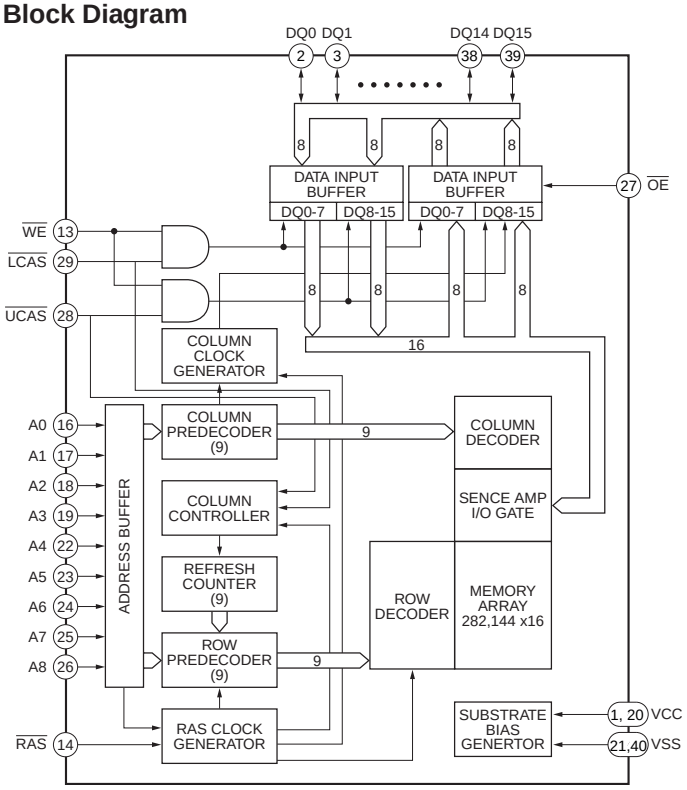
4M DRAM

● **Pin Assignment**



SOJ

● **Block Diagram**



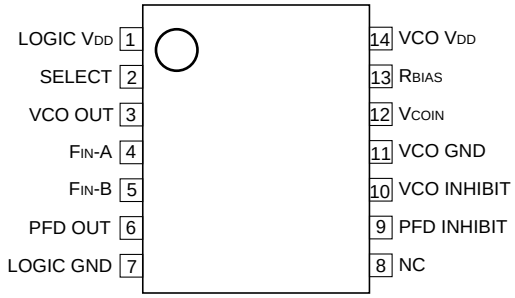
● **Pin Function**

Pin No.	Pin Name	Function	I/O	Pin No.	Pin Name	Function	I/O
1	Vcc	Power (+5V)	—	21	Vss	Ground	—
2	DQ0	Data I/O	I/O	22	A4	Address Input	I
3	DQ1	Data I/O	I/O	23	A5	Address Input	I
4	DQ2	Data I/O	I/O	24	A6	Address Input	I
5	DQ3	Data I/O	I/O	25	A7	Address Input	I
6	Vcc	Power (+5V)	—	26	A8	Address Input	I
7	DQ4	Data I/O	I/O	27	$\overline{OE}$	Output Enable	O
8	DQ5	Data I/O	I/O	28	$\overline{UCAS}$	Column Address Strobe	I
9	DQ6	Data I/O	I/O	29	$\overline{LCAS}$	Column Address Strobe	I
10	DQ7	Data I/O	I/O	30	NC		—
11	NC		—	31	DQ8	Data I/O	I/O
12	NC		—	32	DQ9	Data I/O	I/O
13	$\overline{WE}$	Write Enable	I	33	DQ10	Data I/O	I/O
14	$\overline{RAS}$	Row Address Strobe	I	34	DQ11	Data I/O	I/O
15	NC		—	35	Vss	Ground	—
16	A0	Address Input	I	36	DQ12	Data I/O	I/O
17	A1	Address Input	I	37	DQ13	Data I/O	I/O
18	A2	Address Input	I	38	DQ14	Data I/O	I/O
19	A3	Address Input	I	39	DQ15	Data I/O	I/O
20	Vcc	Power (+5V)	—	40	Vss	Ground	—

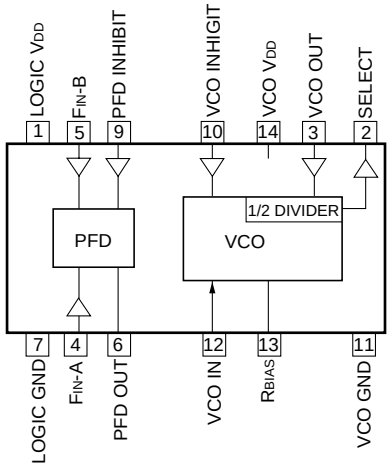
■ TLC2932IPW (SIGNAL ASSY: IC7703, IC7704)

PLL IC

● **Pin Assignment**



● **Block Diagram**



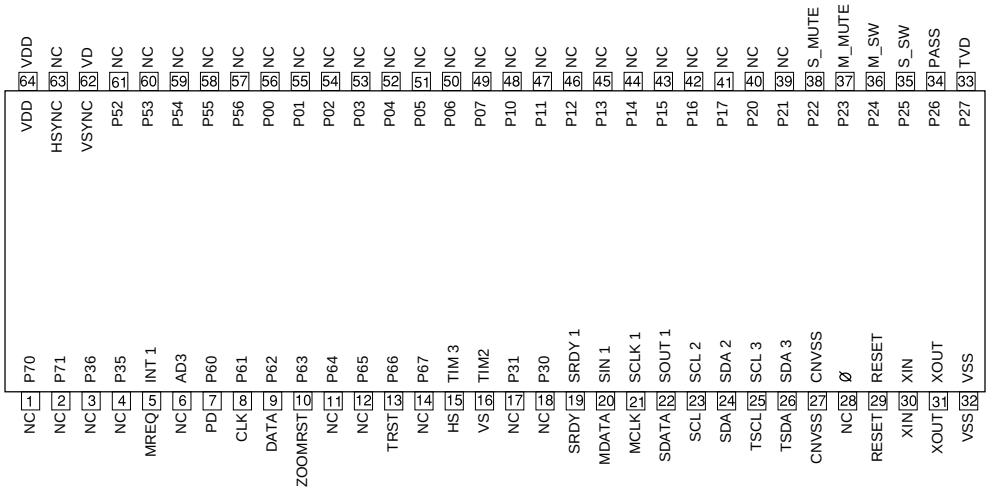
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	LOGIC V_{DD}	—	Pin which supplies power voltage to the internal logic circuit. Should be completely separated from the VCO power voltage supply pin.
2	SELECT	O	VCO output frequency 1/2 divider select pin. By controlling this pin using external logic, the VCO output frequency can be frequency divided by 1/2.
3	VCO OUT	O	VCO output pin. Set to level "L" when inhibited.
4	F_{IN}-A	I	2-input pin for detecting the edge difference between the reference frequency (REF-IN) and frequency from the external counter. Normally, the 1REF-IN is input to pin FIN-A while the divided frequency and doubled frequency from the external counter is input to pin FIN-B.
5	F_{IN}-B	I	2-input pin for detecting the edge difference between the reference frequency (REF-IN) and frequency from the external counter. Normally, the 1REF-IN is input to pin FIN-A while the divided frequency and doubled frequency from the external counter is input to pin FIN-B.
6	PFD OUT	O	PFD (phase frequency detector) output pin. Can be fixed at high impedance.
7	LOGIC GND	—	Internal logic circuit ground pin.
8	NC	—	Internal unconnected pin.
9	PFD INHIBIT	I	PFD inhibit function control pin.
10	VCO INHIBIT	I	VCO inhibit function control pin.
11	VCO GND	—	VCO ground pin.
12	V_{COIN}	I	VCO control voltage input pin. Normally, PLL inputs the VCO oscillation control voltage from the LPF configured externally.
13	R_{BIAS}	I	Bias resistance connection pin for setting the VCO oscillation frequency. Connects the bias resistor between this pin and the power line when supplying bias for oscillation operations of the internal VCO and for setting and adjusting the oscillation frequency.
14	VCO V_{DD}	—	VCO power voltage supply pin. This should be completely separated from the power voltage pin of internal logic.

■ PD5499A (SIGNAL ASSY: IC7800)

CONTROL µ-COM

● Pin Assignment



● Pin Function

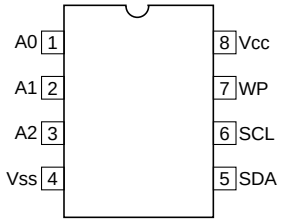
Pin No.	Pin Name	I/O	Function
1	NC	I	Unused
2	NC	I	Unused
3	NC	I	Unused
4	NC	I	Unused
5	MREQ	I	M-S serial main request input
6	NC	I	Unused
7	PD	O	T bus period output
8	CLK	O	T bus clock output
9	DATA	O	T bus clock output
10	ZOOMRST	O	2-screen zoom IC reset output
11	NC	I	Unused
12	NC	I	Unused
13	TRST	O	TVGP+ reset output
14	NC	I	Unused
15	HS	I	Video horizontal sync signal detection input
16	VS	I	Video vertical sync signal detection input
17	NC	I	Unused
18	NC	I	Unused
19	SRDY	O	M-S serial sub ready output
20	MDATA	I	M-S serial main data input
21	MCLK	I	M-S serial main clock input
22	SDATA	O	M-S serial sub data output
23	SCL	O	IIC bus clock output
24	SDA	I/O	IIC bus data input/output
25	TSCL	O	TVGP+ IIC bus clock output
26	TSDA	I/O	TVGP+ IIC bus data input/output
27	CNVSS	I	Processor mode switching input
28	NC	O	Timing signal output

Pin No.	Pin Name	I/O	Function
29	RESET	I	Reset input
30	XIN	I	System clock input
31	XOUT	O	System clock output
32	VSS	I	Power supply input (GND)
33	TVD	O	TVGP+ vertical sync signal output
34	PASS	O	1-screen through switching output
35	S_SW	O	Sub composite /S switching output
36	M_SW	O	Main video/EPG switching output
37	M_MUTE	O	Main video deletion output
38	S_MUTE	O	Sub video deletion output
39	NC	O	Unused (Fixed at "L" output)
40	NC	O	Unused (Fixed at "L" output)
41	NC	O	Unused (Fixed at "L" output)
42	NC	O	Unused (Fixed at "L" output)
43	NC	O	Unused (Fixed at "L" output)
44	NC	O	Unused (Fixed at "L" output)
45	NC	O	Unused (Fixed at "L" output)
46	NC	O	Unused (Fixed at "L" output)
47	NC	O	Unused (Fixed at "L" output)
48	NC	O	Unused (Fixed at "L" output)
49	NC	O	Unused (Fixed at "L" output)
50	NC	O	Unused (Fixed at "L" output)
51	NC	O	Unused (Fixed at "L" output)
52	NC	O	Unused (Fixed at "L" output)
53	NC	O	Unused (Fixed at "L" output)
54	NC	O	Unused (Fixed at "L" output)
55	NC	O	Unused (Fixed at "L" output)
56	NC	O	Unused (Fixed at "L" output)
57	NC	O	Unused (Fixed at "L" output)
58	NC	O	Unused (Fixed at "L" output)
59	NC	O	Unused (Fixed at "L" output)
60	NC	O	Unused (Fixed at "L" output)
61	NC	O	Unused (Fixed at "L" output)
62	VD	I	TVGP+ VD1 signal input
63	NC	I	Unused (Fixed at "L" output)
64	VDD	I	Power input (+5V)

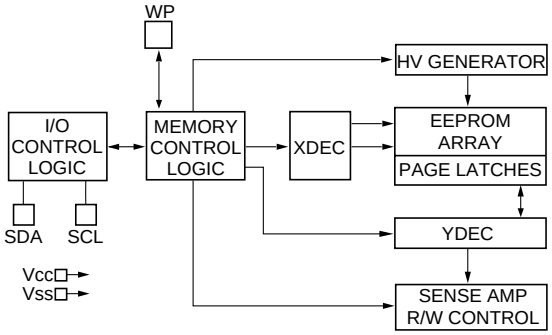
■ 24LC08B(I)SN (SIGNAL ASSY: IC7802)

8K EEPROM

● **Pin Assignment**



● **Block Diagram**

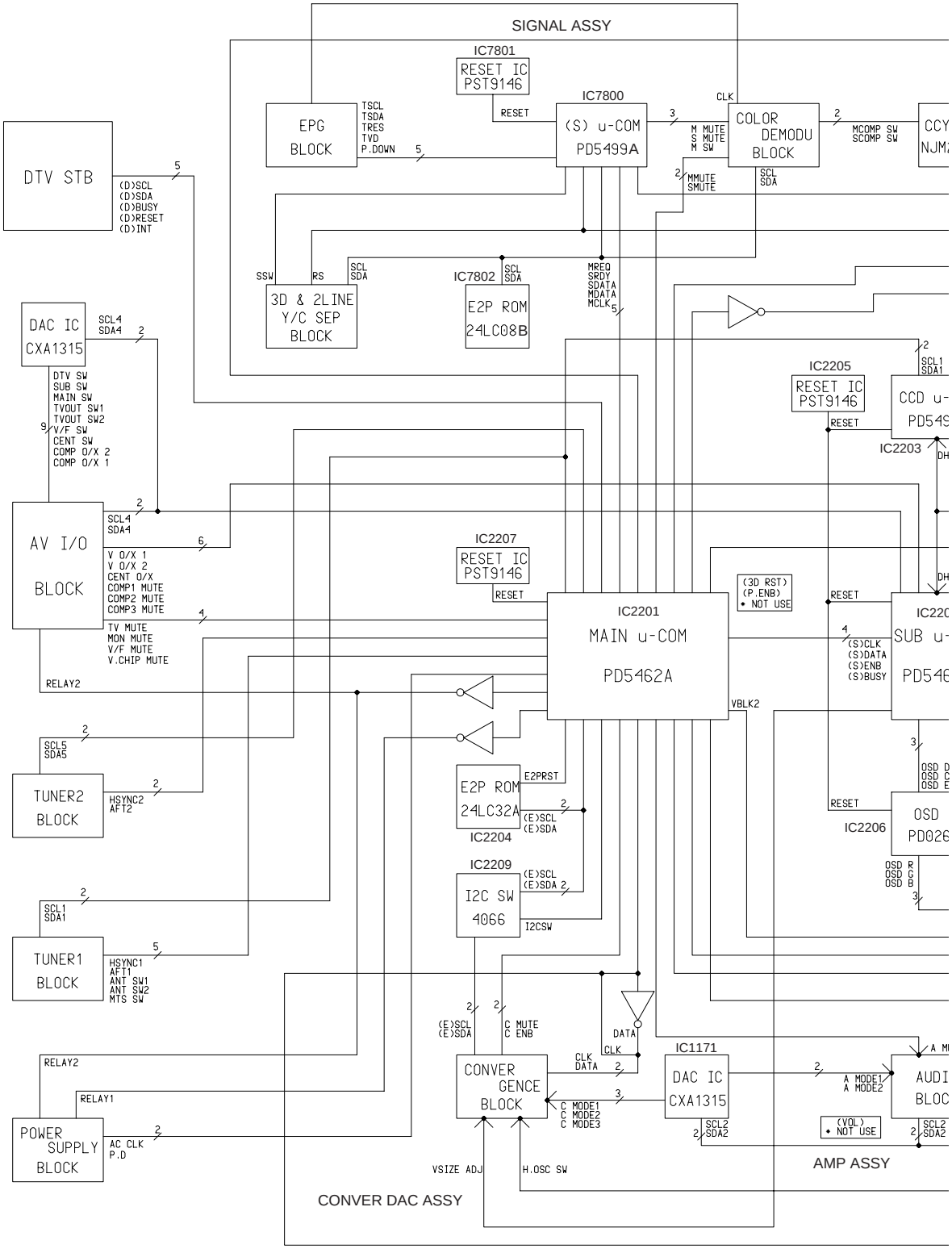


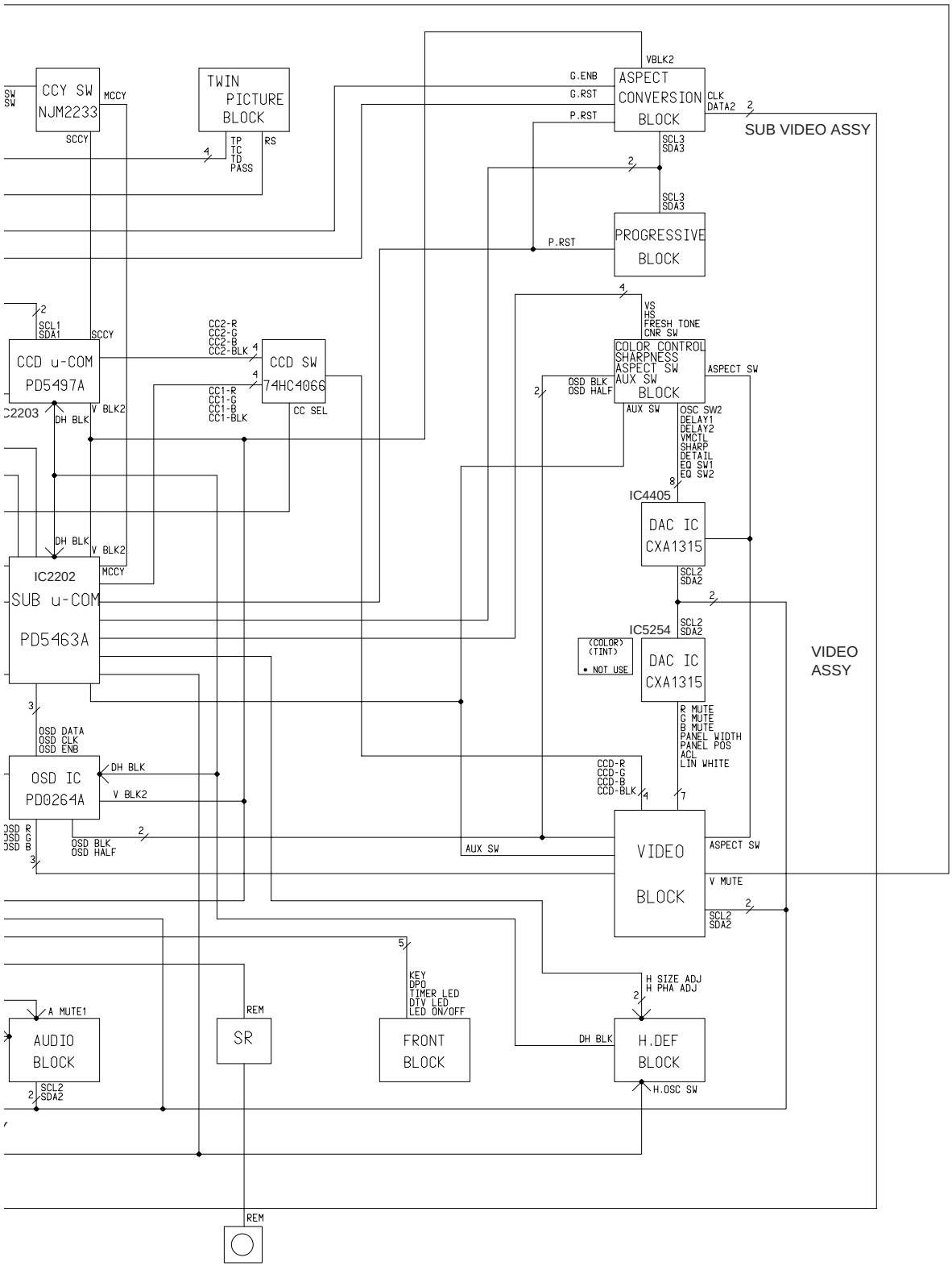
● **Pin Function**

Pin No.	Pin Name	I/O	Function
1	A0	I	No Internal Connection
2	A1	I	No Internal Connection
3	A2	I	No Internal Connection
4	Vss	—	Ground
5	SDA	I/O	Serial Address/Data I/O
6	SCL	I	Serial Clock
7	WP	I	Write Protect Input
8	Vcc	—	+4.5V to 5.5V Power Supply

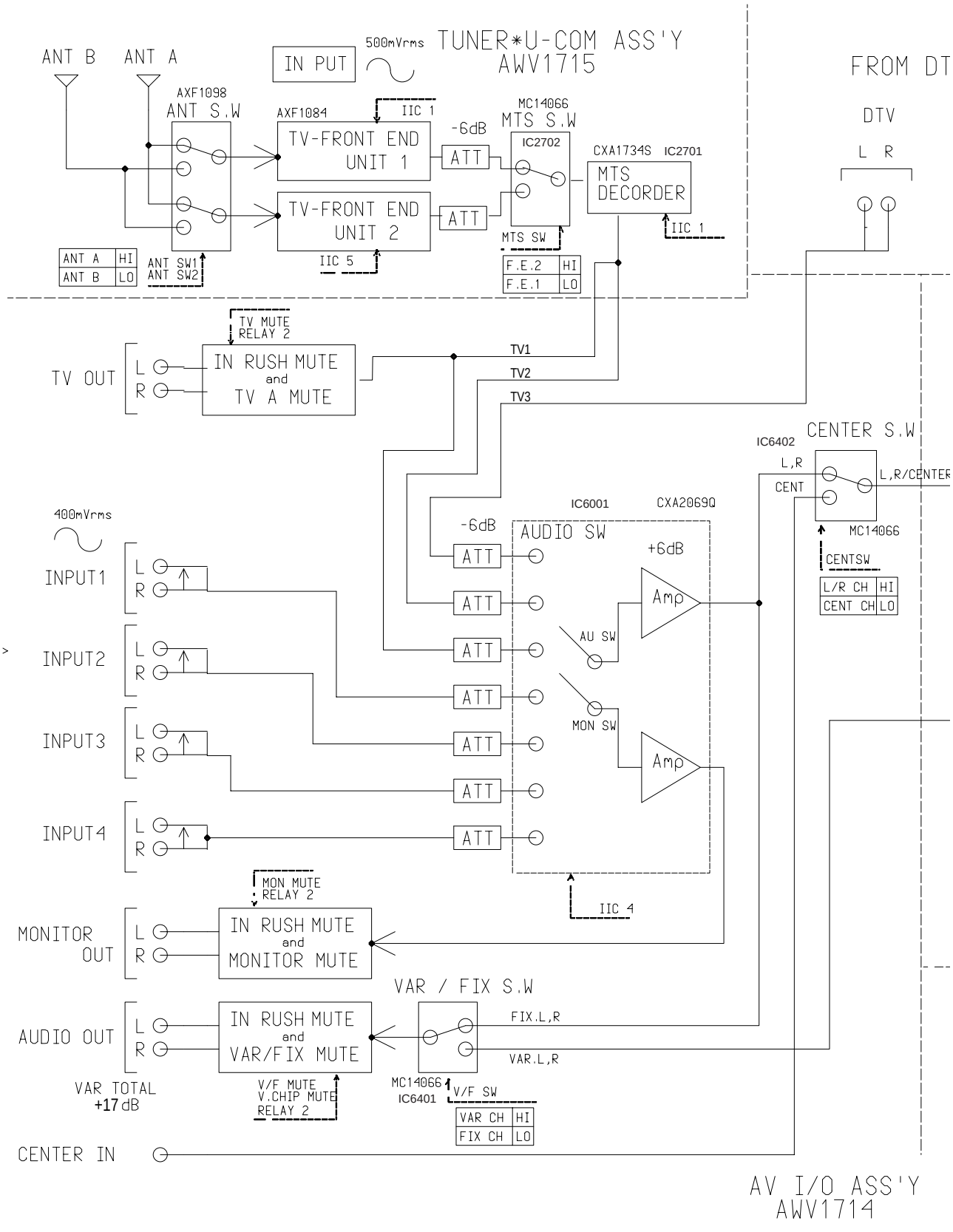
7.3 BLOCK DIAGRAMS

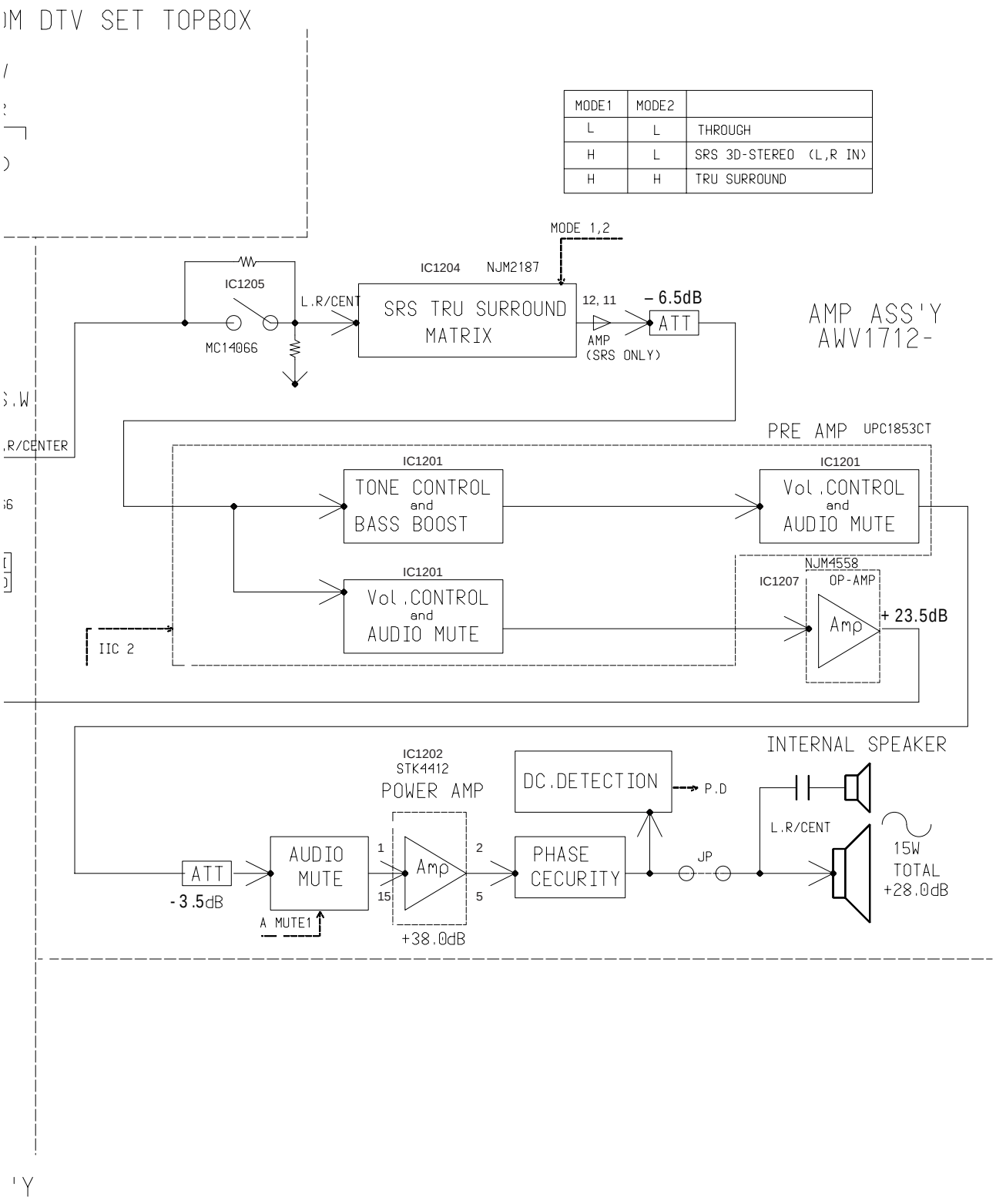
7.3.1 μ-COM BLOCK



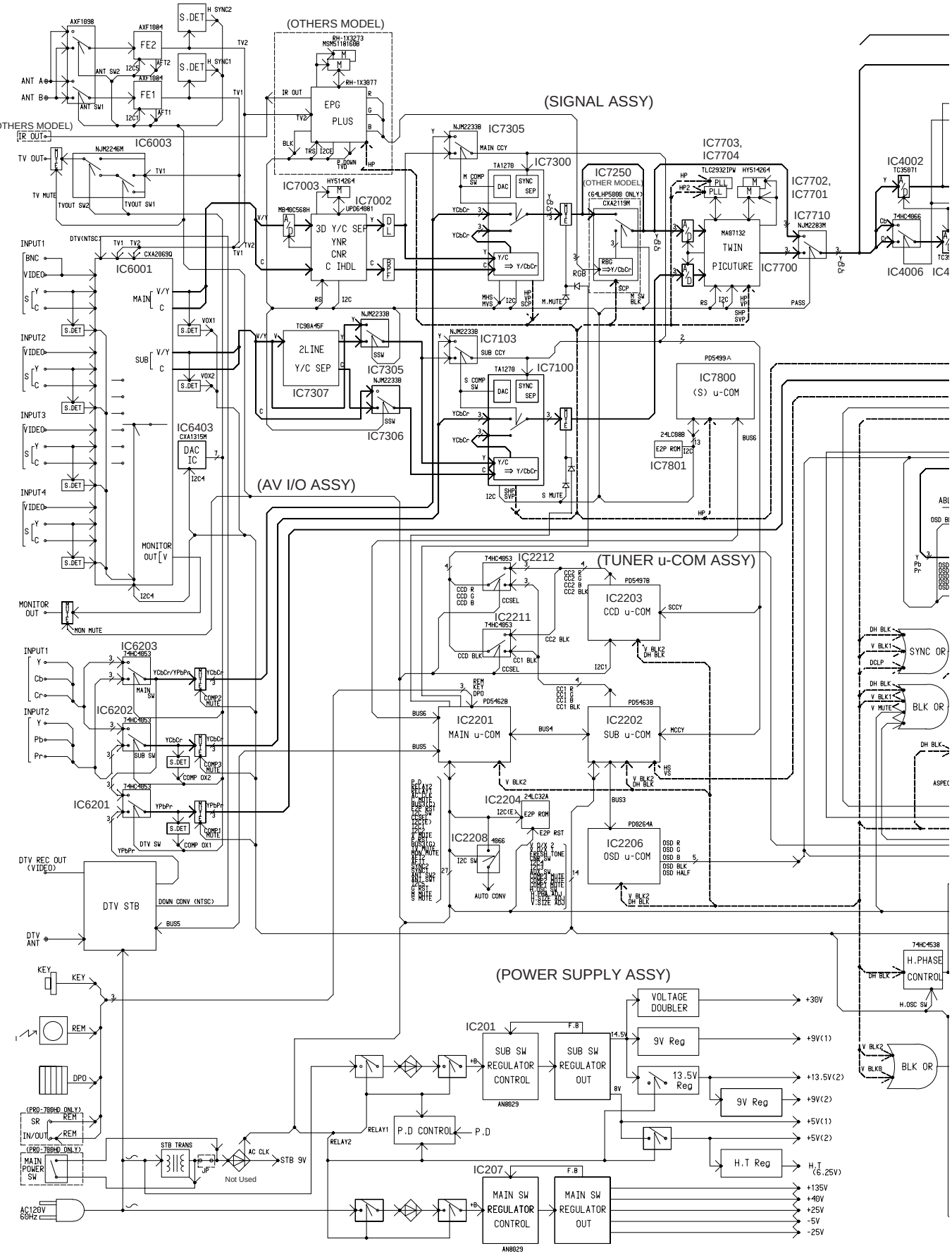

CCY SW
NJM2233
MCCY
SCCY
TWIN
PICTURE
BLOCK
TP
TC
TD
PASS
RS
VBLK2
G.ENB
G.RST
P.RST
ASPECT
CONVERSION
BLOCK
CLK
DATA2
SUB VIDEO ASSY
SCL3
SDA3
PROGRESSIVE
BLOCK
SCL1
SDA1
CCD u-COM
PD5497A
CC2-R
CC2-G
CC2-B
CC2-BLK
CCD SW
74HC4066
CC1-R
CC1-G
CC1-B
CC1-BLK
CC SEL
V BLK2
DH BLK
VS
HS
FRESH TONE
CNR SW
COLOR CONTROL
SHARPNESS
ASPECT SW
AUX SW
BLOCK
OSD BLK
OSD HALF
ASPECT SW
AUX SW
OSC SW2
DELAY1
DELAY2
VMCTL
SHARP
DETAIL
EQ SW1
EQ SW2
IC4405
DAC IC
CXA1315
SCL2
SDA2
IC2202
SUB u-COM
PD5463A
IC5254
(COLOR)
(TINT)
* NOT USE
VIDEO
ASSY
OSD DATA
OSD CLK
OSD ENB
OSD IC
PD0264A
R MUTE
G MUTE
B MUTE
PANEL WIDTH
PANEL POS
ACL
LIN WHITE
CCD-R
CCD-G
CCD-B
CCD-BLK
VIDEO
BLOCK
V MUTE
A MUTE1
AUDIO
BLOCK
REM
SR
KEY
DPO
TIMER LED
DTV LED
LED ON/OFF
FRONT
BLOCK
H SIZE ADJ
H PHA ADJ
H.DEF
BLOCK
H.OSC SW

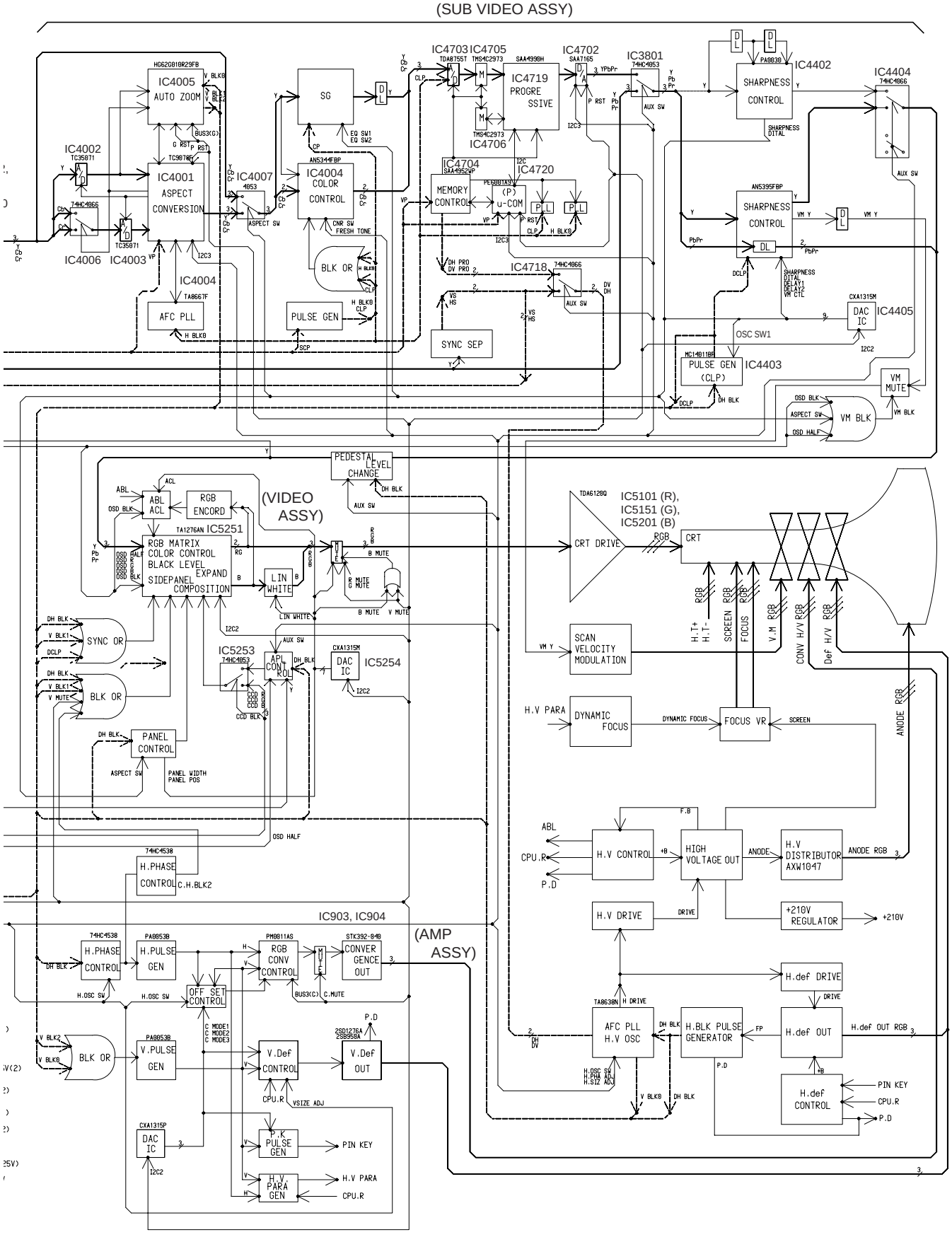
7.3.2 AUDIO BLOCK




)M DTV SET TOPBOX
MODE1 MODE2
L L THROUGH
H L SRS 3D-STEREO (L,R IN)
H H TRU SURROUND
MODE 1,2
IC1204 NJM2187
IC1205
L.R/CENT
SRS TRU SURROUND MATRIX
12, 11
– 6.5dB
ATT
AMP (SRS ONLY)
MC14066
AMP ASS'Y AWV1712-
PRE AMP UPC1853CT
IC1201
TONE CONTROL and BASS BOOST
IC1201
Vol.CONTROL and AUDIO MUTE
IC1201
Vol.CONTROL and AUDIO MUTE
NJM4558
IC1207 OP-AMP
Amp
+ 23.5dB
IIC 2
INTERNAL SPEAKER
IC1202 STK4412
POWER AMP
DC.DETECTION
P.D
L.R/CENT
15W TOTAL +28.0dB
ATT
-3.5dB
AUDIO MUTE
A MUTE1
1
15
Amp
2
5
+38.0dB
PHASE CECURITY
JP

7.3.3 VIDEO BLOCK



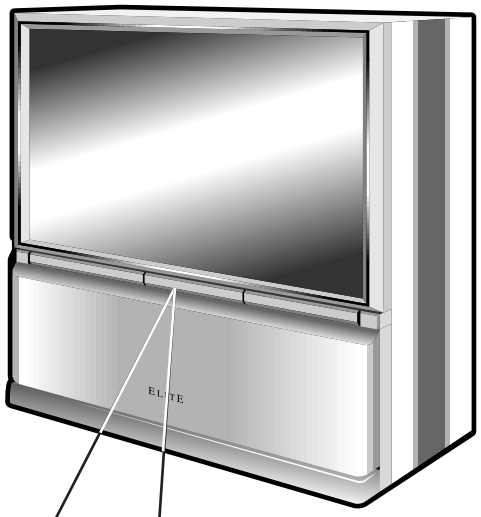

(SUB VIDEO ASSY)
IC4005
AUTO ZOOM
IC4001
ASPECT
CONVERSION
IC4002
IC4006
IC4003
IC4004
TA8667F
AFC PLL
IC4007
4053
IC4004
COLOR
CONTROL
SG
BLK OR
PULSE GEN
IC4703
IC4705
IC4719
PROGRE
SSIVE
IC4706
IC4704
MEMORY
CONTROL
IC4720
u-COM
PLL
SYNC SEP
IC4718
IC4702
IC3801
SHARPNESS
CONTROL
IC4402
IC4404
SHARPNESS
CONTROL
DAC
IC
IC4405
PULSE GEN
(CLP)
IC4403
VM
MUTE
VM BLK
(VIDEO
ASSY)
PEDESTAL
LEVEL
CHANGE
ABL
ACL
RGB
ENCORD
IC5251
RGB MATRIX
COLOR CONTROL
BLACK LEVEL
EXPAND
SIDEPANEL
COMPOSITION
LIN
WHITE
SYNC OR
BLK OR
PANEL
CONTROL
IC5253
APL
CONT
IC5254
DAC
IC
IC5101 (R),
IC5151 (G),
IC5201 (B)
CRT DRIVE
CRT
SCAN
VELOCITY
MODULATION
DYNAMIC
FOCUS
FOCUS VR
H.V PARA
H.PHASE
CONTROL
H.PULSE
GEN
OFF SET
CONTROL
RGB
CONV
CONTROL
CONVER
GENCE
OUT
V.PULSE
GEN
V.Def
CONTROL
V.Def
OUT
P.K
PULSE
GEN
H.V
PARA
GEN
IC903, IC904
(AMP
ASSY)
H.V CONTROL
HIGH
VOLTAGE OUT
H.V
DISTRIBUTOR
AXW1047
H.V DRIVE
+210V
REGULATOR
H.def DRIVE
AFC PLL
H.V OSC
H.BLK PULSE
GENERATOR
H.def OUT
H.def
CONTROL
PIN KEY
CPU.R
P.D
ANODE RGB
SCREEN
FOCUS
V.M RGB
CONV H/V RGB
Def H/V RGB
H.T+
H.T-

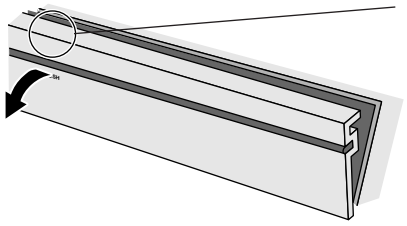
8. PANEL FACILITIES AND SPECIFICAITONS

8.1 PANEL FAICLITIES

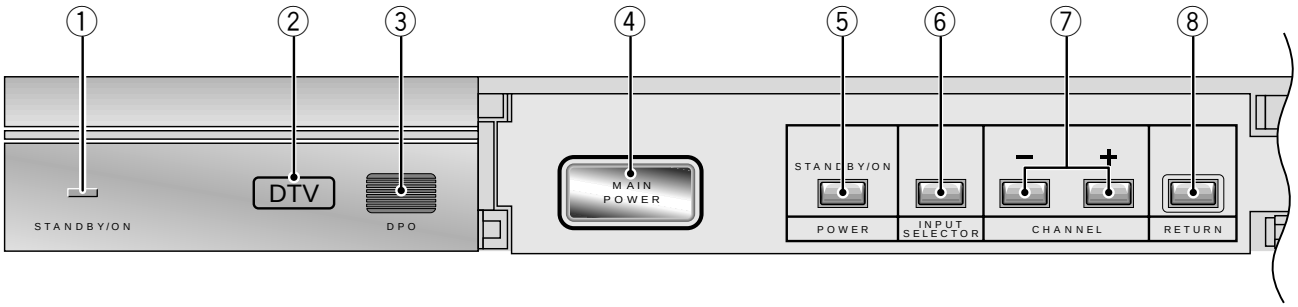
A flip-down door conceals the control panel. Push gently and release, to open the door. To close the door, lift it back up into place.

NOTE:
If you accidentally pull the door, it may not shut properly. Push the door back in to shut it.





In some cases, the door may only open slightly when pushed. In such cases, open the door with your finger as shown in the figure at left.



① POWER STANDBY/ON indicator

② DTV indicator

Lights when receiving a digital television broadcast.
If a digital tuner has been connected, the DTV indicator may still blink even when the power has been turned off. (This is not a defect.)

③ DPO sensor

Sensor to detect the room brightness.

④ MAIN POWER switch

Press once to turn on the main power (STANDBY mode). Press again to turn off the main power.

⑤ POWER button (STANDBY/ON)

Press once to turn on the Monitor. Press again to turn off the Monitor.

⑥ INPUT SELECTOR button

Press to select your program source. Each press of the INPUT SELECTOR changes the selection to the next source.

TV → (DTV) → INPUT 1 → INPUT 2 → INPUT 3 → INPUT 4 → TV

⑦ CHANNEL buttons

Press plus (+) or minus (–) to tune to a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑧ RETURN button

Press to set the Projection Monitor to its initial mode.

Initial mode

Input selector:	Set to TV.
TV channel:	Remains at the last channel set.
VOLUME:	Remains at the last setting.
MUTING:	OFF
PICTURE	
MODE:	STD
Parameters:	Set to 0.
3D Y/C LEVEL:	3
3D NR LEVEL:	3
CNR:	OFF
COLOR TEMP:	MID
FLESH TONE:	ON
SVM	HIGH
SOUND	
MTS:	MAIN
Parameters:	Set to 0.
SURROUND:	OFF
SCREEN	
AUTO SCREEN:	OFF
MODE:	NATURAL WIDE
V. POSITION:	Set to 0.
CC:	OFF
DPO:	OFF
SYSTEM IN/OUT	
SPEAKER:	NORMAL
AUDIO OUT:	FIXED
SYSTEM MODE:	OFF

- When this button is pressed while adjusting the outer point convergence, the outer point convergence returns to the initial mode.

⑨ VOLUME buttons

Press plus (+) button to increase the volume, press minus (–) button to decrease it.

⑩ INPUT 4 jacks

These inputs are for Video Movie and VCR. Use RCA-type pin plug cords (the same as those used in Hi-Fi systems) and S-VIDEO cords for connections. When the audio source to be connected is monaural, connect the source to the L-(MONO) jack.

CAUTION:

Do not press any operation button on the Projection Monitor or the remote control unit while recording. Signals from the MONITOR OUTPUT jacks may be temporarily interrupted when a button is pressed.

ATTENTION

The Projection Monitor Receiver will not function properly in the following cases.

- An electrical discharge in the CRT.
- Lightning storms.
- High static electricity environment.
- Poor voltage regulation in the power source.

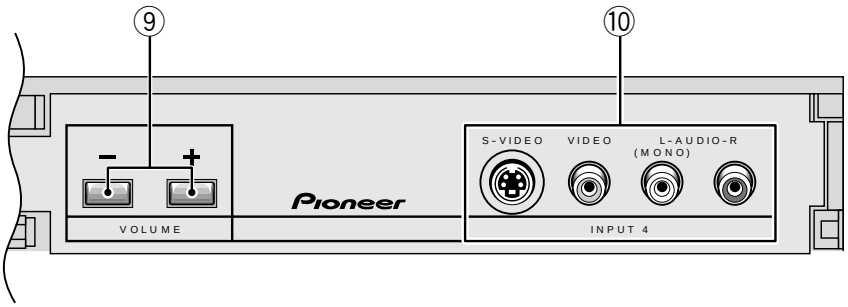
If the Projection Monitor does not operate properly, reset it as follows:

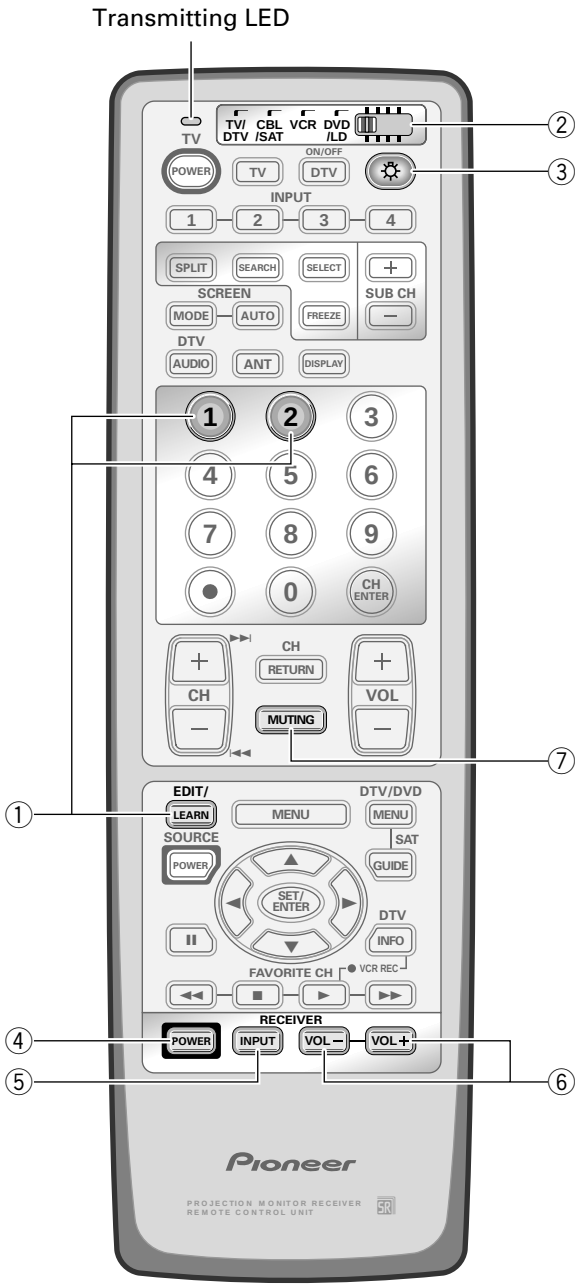
1. Turn off the power of the unit with the ④ MAIN POWER switch.
2. After approximately 1 minute, turn on the power with ④ MAIN POWER switch and ⑤ POWER button.

If the normal operation cannot be restored after the above treatment, immediately unplug the power cord and call your nearest PIONEER-authorized service center.

NOTE:

On rare occasions, an electrical discharge may occur inside the CRT. It makes a short, sharp pop and either no sound is produced or the volume level changes by itself. The SPLIT screen and SEARCH screen functions will be cancelled automatically if an electrical discharge occurs when this function is engaged.





REMOTE CONTROL UNIT SETTING BUTTONS

① **EDIT/LEARN button**

EDIT: When the EDIT/LEARN button is pressed at the same time as number button 1, the mode will change to preset code edit mode.

LEARN: When the EDIT/LEARN button is pressed at the same time as number button 2, the unit's capability to learn and store command codes from other remote control units will be activated.

② **Mode switch**

Use to switch the remote control unit modes.

③ **Light button**

When this button is pressed, all the buttons on the remote control unit will light. The lighting will turn off if no operations are performed within five seconds.
This button is used for performing operations in dark places.

RECEIVER CONTROL BUTTONS

When a Pioneer receiver is connected to the Monitor, the receiver can be operated using buttons ④ to ⑥.
When another company's receiver is connected to the Monitor, have the signals for ④ to ⑥ learned.

④ **RECEIVER POWER button (STANDBY/ON)**

Turns receiver power on and off.

⑤ **RECEIVER INPUT button**

Selects the input source connected to the receiver.

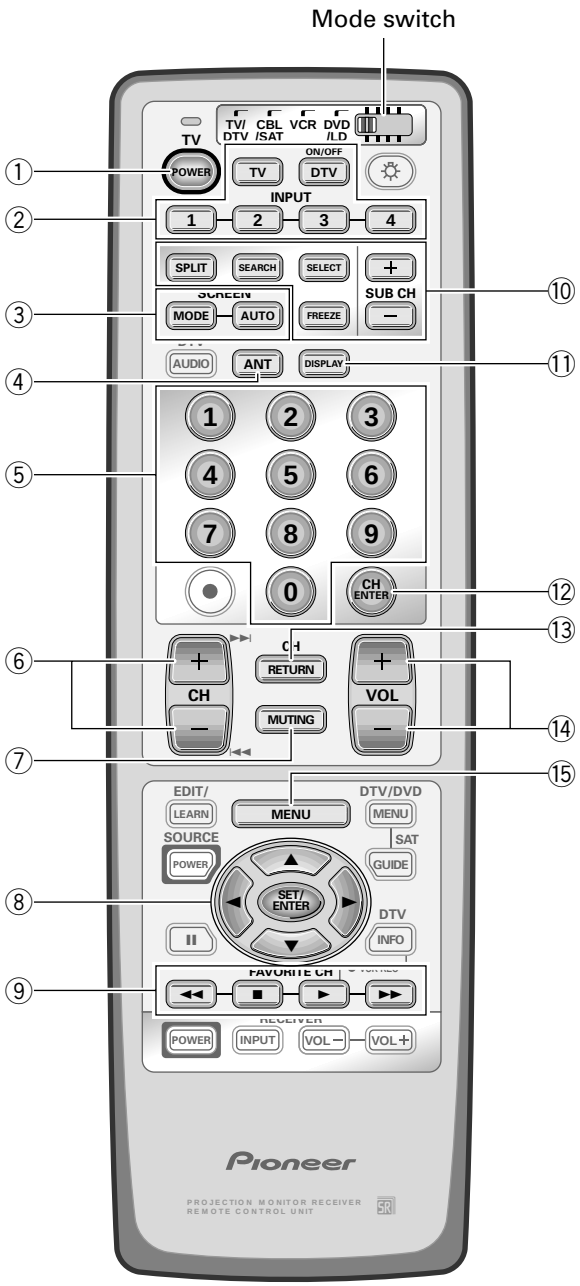
⑥ **RECEIVER VOL (volume) +, - buttons**

Adjusts receiver volume level.
Press the plus button (+) to increase the volume and the minus button (-) to decrease it.

⑦ **(RECEIVER) MUTING button**

Allows the receiver's mute signal to be learned.
This button is used when the mode switch has been set to something other than TV/DTV.

MONITOR (TV) CONTROL BUTTONS



Set the mode switch to TV/DTV.

① **TV POWER button (STANDBY/ON)**
Turns the power of the monitor on and off.

② **Input Selector buttons (TV, DTV*1, INPUT 1 to INPUT 4)**
Press the button to select the source you wish to watch. The screen will display your selection.

③ **SCREEN MODE, AUTO SCREEN buttons**
MODE: Press to select the SCREEN MODE.
AUTO: Press to turn the AUTO SCREEN function on and off.

④ **ANT (antenna selector) button**
Press to switch between ANTENNA-A and ANTENNA-B when you wish to watch TV.

⑤ **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

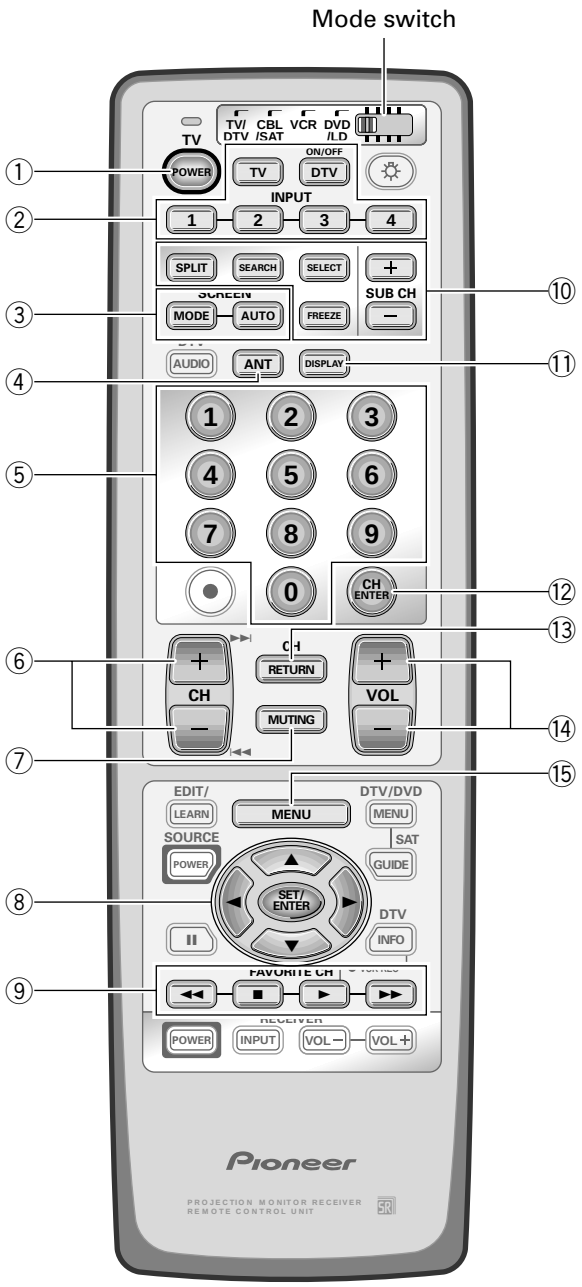
⑥ **CH (channel) +, – button**
Press plus (+) or minus (–) to tune in a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ **MUTING button**
Press to temporarily turn off the sound. Press again to return to the previous volume level.

⑧ **Select/Adjust/Set buttons (SET/ENTER, ◄, ►, ▲, ▼)**
◄, ►, ▲, ▼: Press to select or adjust items on the menu screen.
SET/ENTER: Press to activate the selected function.

⑨ **FAVORITE CH buttons**
These buttons call up the channels that have been assigned to them.

⑩ **SPLIT/SEARCH screen buttons**
SPLIT: Press to turn the SPLIT screen function on and off.
SEARCH: Press to select the SEARCH screen mode.
SELECT: Selects the screen for switching the channel or input source.*2
FREEZE: When this button is pressed with the regular screen, the screen will change to the SPLIT screen and the picture at the time the button was pressed will become the sub-picture, displayed as a frozen image.
SUB CH +, –: Used to switch the channel for the sub-picture of the SPLIT screen.



⑪ **DISPLAY button**
Press to display the input source, channel, setting and other screen indicators for a few seconds.

⑫ **CH ENTER button**
Fix the selected channel with the direct channel selection buttons.

⑬ **CH RETURN (channel return) button**
Press to switch between the current channel and the channel you were watching immediately before.

⑭ **VOL (volume) +, – buttons**
Press plus (+) button to increase the volume, press minus (–) button to decrease it.
Volume level will appear on the screen as numbers and a bar graph. The maximum volume level is "63".
The display will disappear from the screen after 2 seconds.

⑮ **MENU button**[*3]
Press to turn on the menu screen for use in function selection. Press again to return to normal TV screen.

*1 For viewing DTV broadcasts, the SH-D07 digital tuner (sold separately) is necessary.
*2 With the 9-SEARCH screen, the search picture's input source and channel cannot be switched.
*3 When the MENU button is pressed, the buttons indicated by "⑧" (SET/ENTER, ◄, ►, ▲ and ▼) will light for a few seconds, indicating that the remote control is ready for making menu settings.
When menu settings are made with the remote control in this condition, all of the buttons indicated by "⑧" will blink while buttons are pressed.

■ SPECIFICATIONS

Display and amplifier section

Reception system ..... American TV standard NTSC system
Screen size ..... 64"
CRT ..... 7" High focus CRT x 3
Brightness (White peak) ..... 400 Foot-Lambert
[White window signal input contrast Max.]
without protective screen
Horizontal resolution ..... More than 1400 lines
[Input digital test pattern (1400 lines resolution)]
Input terminals ..... 4 video inputs
4 S-VIDEO input jacks (Y/C separate INPUT)
2 COMPONENT VIDEO INPUT jacks (Y, C_B/P_B, C_R/P_R)
4 audio inputs
CENTER INPUT jack
Output terminals ..... MONITOR/TV/AUDIO
Input terminal signal ratings
Input signal
Video signal:
Composite and S-VIDEO(Y):1.0 Vp-p (75 ohms load)
COMPONENT (Y): 1.0 Vp-p (75 ohms load)
(C_B/P_B, C_R/P_R): 0.7 Vp-p (75 ohms load)
Input impedance ..... Video input: 75 ohms
Audio input (including CENTER): 22 kilo-ohms or more
Input signal polarity (Video) ..... Synchronized negative
Output terminal signal ratings
Output signal ..... Video signal: 1 Vp-p (75 ohms load)
Audio signal: 500 mV rms (100 % modulation)
Output impedance ..... Video output: 75 ohms
Audio output: Less than 1 kilo-ohms
Effective output
Front both channels driven ..... 15 W + 15 W
(THD. 1 % 1 kHz, 8 ohms)
Built-in speaker system ..... 16 cm (6-5/16 in) full range x 2
..... 6.6 cm (2-9/16 in) tweeter x 2

Tuner section

Circuit type ..... Video signal detection:
PLL full synchronous detection
PLL digital synthesizer system
Audio multiplex: BTSC system
Reception channels . VHF; CH2~CH13, UHF; CH14~CH69
CATV (STANDARD, IRC or HRC)
CATV 1-125 CH
Antenna terminals
..... Antenna terminal, 75 ohms UNBAL,
F-type connector (VHF, UHF MIXED)

Electrical section, miscellaneous

Power requirements ..... 120 V AC, 60 Hz
Power consumption
At time of shipment ..... 343 W, 650 VA (CSA)
With digital tuner installed ..... 400 W, 730 VA (CSA)
External dimensions .... 1510 (W) x 709 (D) x 1425 (H) mm
59-7/16 (W) x 27-28/32 (D) x 56-1/8 (H) inch

Weight of main unit ..... 167 kg (368 lb 4 oz)

Wireless remote control unit

Operation system ..... Infrared remote control system
Power source ..... Two DURACELL "AA" MN1500 1.5 V
ALKALINE dry cell batteries
Dimensions ..... 66 (W) x 24.6 (H) x 226.5 (D) mm
2-19/32 (W) x 31/32 (H) x 8-29/32 (D) inch
Weight ..... 170 g (4 oz) (without batteries)

Accessories

Operating instructions 1
Warranty card 1
Remote control unit 1
DURACELL "AA" MN1500 1.5V
Alkaline dry cell batteries 2
Protective screen 1
Panel frame 2
Side frame cover 2
Frame cover 2
Panel frame attaching screw 10